86-673

No. ___



IN THE

# Supreme Court of the United States

OCTOBER TERM, 1986

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REVLON, INC.

*Petitioner,*

vs.

CARSON PRODUCTS COMPANY

*Respondent.*

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**PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

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100 pp

## QUESTION PRESENTED

The district court declared invalid two of defendant/respondent's patents, ruling in the process that this was an "exceptional" case in which an award of attorney fees to plaintiff/petitioner, the prevailing party, was warranted under 35 U.S.C. §285. The attorney fee ruling was based upon detailed factual findings that respondent, in the prosecution of its patent applications, had acted in bad faith by misrepresenting facts to and concealing information from the U.S. Patent and Trademark Office (PTO). On appeal, the Federal Circuit did not overturn the trial court's finding that respondent had seriously breached its duties of candor and good faith to the PTO by engaging in misconduct that came "extremely close to . . . fraud." Yet, the appellate court vacated the award of attorney fees, holding that a finding of "bad faith during proceedings before the PTO" is an insufficient predicate for classifying a case as "exceptional." The question is: whether the Federal Circuit misinterpreted 35 U.S.C. §285 in ruling as a matter of law that the district court lacked discretion to award attorney fees to petitioner because the patentee's bad faith misrepresentations and omissions before the PTO did not amount to fraud or "inequitable conduct."

## STATEMENT PURSUANT TO RULE 21(b)

The caption of the case in this Court contains the names of the parties to the proceedings in the United States Court of Appeals for the Federal Circuit.

## STATEMENT PURSUANT TO RULE 28.1

Petitioner Revlon, Inc. is a wholly owned subsidiary of Revlon Group, Inc.

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OCTOBER TERM, 1986

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**No. ___**

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REVLON, INC.

*Petitioner,*

vs.

CARSON PRODUCTS COMPANY

*Respondent.*

---

**PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

---

Petitioner respectfully prays that a writ of certiorari issue to review the judgment entered on June 30, 1986, by the United States Court of Appeals for the Federal Circuit in Appeal No. 85-2823. Rehearing was denied on July 25, 1986 and petitioner's Suggestion for Rehearing In Banc was declined on August 6, 1986.

## OPINIONS BELOW

The opinion of the Court of Appeals is reported at ___F.2d ___and is reprinted in Appendix D to this petition at pages 4a to 9a.[1] The District Court opinion

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[1] References to pages of the appendices to this petition are denoted "___ a."

is reported at 602 F.Supp. 1071 and is reprinted in Appendix F to this petition at pages 12a to 80a.

## JURISDICTION

The judgment of the Court of Appeals was entered on June 30, 1986; rehearing was denied on July 25, 1986 and rehearing *in banc* was declined on August 6, 1986. This Court has jurisdiction pursuant to 28 U.S.C. §1254(1).

## STATUTE INVOLVED

35 U.S.C. §285

The court in exceptional cases may award reasonable attorney fees to the prevailing party.

## STATEMENT

The Court of Appeals for the Federal Circuit set aside an attorney fee award in favor of petitioner, the prevailing plaintiff in the trial court. The appellate court held, as a matter of law, that attorney fees under 35 U.S.C. §285 may only be assessed against a patentee who engaged in fraud or other "inequitable conduct" before the PTO, and concluded that the district court's finding of bad faith misconduct coming "extremely close to . . fraud" was legally insufficient to support the award.

The pertinent facts are simple and undisputed. Petitioner filed this declaratory judgment action in the Southern District of New York to invalidate two patents (U.S. Patent Nos. 4,304,244 and 4,373,540) issued to respondent for a hair straightening composition and process. After a ten-day trial and review of the parties' post-trial briefs, the district court in-

validated both patents, finding that the patent claims had been anticipated and were also obvious from certain prior art patents to L'Oreal, and *inter alia*, a scholarly article by E.K. Moore.

Addressing petitioner's argument that the patents were also invalid or unenforceable because of respondent's fraud on the PTO, the trial court (Senior Judge Cooper) expressly found—

> that the defendant [respondent] was not forthright in its presentation to the PTO . . . fully aware that the agency was not equipped to put to the test the quality and scope of each and every assertion (78a).

After reviewing the evidence of respondent's concealment, misrepresentations and lack of candor,[2] the court observed:

> [T]his proof distresses and astonishes us to the point where we find no hesitancy what-

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[2] The specific acts of bad faith and lack of candor found by Judge Cooper include: respondent's failure to submit the invalidating prior art "Moore article" to the PTO (78a); its presentation of fabricated test results with "scienter to deceive the PTO" (77a); its intentional misrepresentation of the nature of the formulations disclosed in the anticipatory L'Oreal patents (75a-76a, 78a); and its failure to report to the PTO test results which negated certain claims of superiority in its patent applications (66a-67a, 78a). Judge Cooper found that respondent's explanation at trial for the latter omission was "a feeble excuse for an obvious misrepresentation that we strongly condemn" (68a). Additionally, respondent was found to have intentionally withheld from the PTO an affidavit from an experienced and impartial FDA official (23a) which disclosed the prior use of respondent's formulations by others in the cosmetic art. Judge Cooper termed respondent's conduct to be a "misreprsentation by omission" (72a).

> ever in stating that the totality thereof brings us extremely close to a finding of fraud (78a).

The court, nonetheless, declined to make a finding of actionable fraud, holding that respondent's repeated "misrepresentation[s] done with intent"—its willful misconduct before the PTO—ultimately lacked the requisite degree of materiality to preclude grant of the patents.

The court, however, concluded that respondent's bad faith misconduct made this an exceptional case warranting an award of attorney fees to petitioner.[3] As legal support for that ruling, the court cited *Kahn v. Dynamics Corp. of America*, 508 F.2d 939 (2d Cir.), *cert. denied*, 421 U.S. 930 (1975), and *Monolith Portland Midwest Co.* v. *Kaiser Aluminum & Chemical Co.*, 407 F.2d 288 (9th Cir. 1969), and stated:

> We consider it beyond dispute that the defendant [respondent] totally disregarded the law's command that it owed the PTO "the highest standards of honesty an candor".... As we see it, we are constrained to, and do, grant an award of attorneys fees in favor of plaintiff [petitioner] (80a).

On appeal, the Federal Circuit affirmed the district court's findings of patent invalidity, but reversed the attorney fee award. The Circuit Court's opinion on the fee issue reads as follows in full text:

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[3] The amount of the fee award was stipulated by the parties at $525,440.00. That amount was not at issue in the courts below and is not at issue before this Court.

*Attorney Fees*

> We do find that Judge Cooper made clear error in finding this case "exceptional" within the meaning of 35 U.S.C. §285. This court has stated that the trial judge may exercise his discretion to award attorney fees and costs because of inequitable conduct during prosecution of the patent or misconduct during litigation. Attorney fees are not to be routinely assessed against a losing party in litigation in order to avoid penalizing a party "for merely defending or prosecuting a lawsuit," and are awarded to avoid a gross injustice.
>
> Moreover, the existence of any bad faith during proceedings before the PTO failed to rise to the level of inequitable conduct. Under these circumstances, no gross injustice is prevented by ordering Carson to pay Revlon's attorney fees. Consequently, proper application of the law dictates that the award of attorney fees be reversed. [8a-9a, citations omitted.]

The Federal Circuit did not discuss the decisions of the Second and Ninth Circuits on which the trial judge had relied.[4] Nor did it define or explain the nature of the inequitable conduct which must be proved to trigger a fee award.

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[4] Those earlier decisions are in accord with a long, unbroken line of cases in the First through the Tenth Circuits. See *infra*, n.5.

## REASONS FOR GRANTING THE WRIT

This case presents an issue of great importance in the proper interpretation of the attorney fee provision of the patent statute, 35 U.S.C. §285. Until the decision below, the "bad faith" standard was uniformly applied in awarding attorney fees in patent cases, as articulated by the Sixth Circuit in *Uniflow Mfg. Co.* v. *King-Seeley Thermos Co.*, 428 F.2d 335, 341 (6th Cir.), *cert. denied*, 400 U.S. 943 (1970):

> The cases that have spoken to this question indicate that for an award of attorneys' fees to be upheld the trial court must have found unfairness, bad faith or inequitable or unconscionable conduct on the part of the losing party.[5]

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[5] Every circuit that has considered the question has adopted the "bad faith" standard. *See* First Circuit: *Colortronic Reinhard & Co.* v. *Plastic Controls*, 668 F.2d 1, 8 (1st Cir. 1981). Second Circuit: *Kahn* v. *Dynamics Corp. of America*, 508 F.2d 939, 945 (2d Cir. 1974). Third Circuit: *Chemical Construction Corp.* v. *Jones & Laughlin Steel Corp.*, 311 F.2d 367, 374 (3d Cir. 1962). Fourth Circuit: *Kaehni* v. *Diffraction Co., Inc.*, 342 F.Supp. 523, 536 (D. Md. 1972), *aff'd without opinion*, 473 F.2d 908 (4th Cir. 1973), *cert. denied*, 414 U.S. 854 (1973). Fifth Circuit: *Parker* v. *Motorola, Inc.*, 524 F.2d 518, 535 (5th Cir. 1975); *Livesay Window Co., Inc.* v. *Livesay Industries, Inc.*, 251 F.2d 469, 475 (5th Cir. 1958). Sixth Circuit: *Campbell* v. *Spectrum Automation Co.*, 601 F.2d 246, 251 (6th Cir. 1979). Seventh Circuit: *American Can Co.* v. *Crown Cork & Seal Co., Inc.*, 693 F.2d 653, 657 (7th Cir. 1982). Eighth Circuit: *Collins* v. *Owen*, 310 F.2d 884, 887 (8th Cir. 1962). Ninth Circuit: *Maurice A. Garbell, Inc.* v. *Boeing Co.*, 385 F.Supp. 1, 44 (C.D. Cal. 1973), *aff'd.* 546 F.2d 297, 300 (9th Cir. 1976), *cert. denied*, 431 U.S. 955 (1977); *Monolith Portland Midwest Company* v. *Kaiser Aluminum & Chemical Corp.*, 407 F.2d 288 (9th Cir. 1969). Tenth Circuit:

The district court, following this uniform standard held that "bad faith" prosecution of a patent application is "sufficient to justify classifying the case as exceptional" citing *Kahn* and *Monolith* (79a).

Even the Federal Circuit, prior to its decision below, recognized the patent fees standard adopted by the regional appellate courts. Thus, relying on decisions of the Fourth, Sixth, Seventh and Tenth Circuits, the Federal Circuit ruled in 1983 that for a case to be considered exceptional under §285 "there must be some finding of unfairness, bad faith, or inequitable conduct on the part of the unsuccessful patentee." *Stevenson* v. *Sears, Roebuck & Co.*, 713 F.2d 705, 713 (Fed. Cir. 1983) (citations omitted). In yet another 1983 decision, the Court noted that "a finding of fraud or inequitable conduct during prosecution of a patent is *not* necessary to constitute an 'exceptional' case under this section, as it may be exceptional for some other reason . . . ." *Orthopedic Equipment Co.* v. *All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1384 (Fed. Cir. 1983) (emphasis added). In 1984, the rulings in both those cases were discussed and reaffirmed in *Rohm & Haas Co.* v. *Crystal Chemical Co.*, 736 F.2d 688, 693 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 172 (1984).

Disregarding the earlier reasoned decisions of the regional circuit courts upon which it previously relied, the Federal Circuit has now squarely ruled that "bad faith"—manifested by willful misrepresentations made with intent to deceive—is insufficient to justify classifying a case as exceptional. In so ruling, the Court

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*True Temper Corp.* v. *CF&I Steel Corp.*, 601 F.2d 495, 509 (10th Cir. 1979).

below has created confusion on this important point of law. Since patent appeals from all district courts now go exclusively to the Federal Circuit, it is critical that the Federal Circuit consistently apply the correct standard under §285. The Circuit Court should not be permitted to change settled law by judicial fiat, without providing any guidance for district courts nationwide.

Here, the Circuit Court's precedent-changing decision contained no discussion or meaningful legal analysis of the contrary precedent for its new attorney fees standard. If this decision is allowed to stand, it will create instability and uncertainty in the substantive law of patents, negating one of Congress' primary objectives in creating the Federal Circuit.

The decision under review not only runs counter to the well-reasoned appellate opinions cited above, it is inconsistent with the underlying public interest which governs the award of attorney fees in patent cases. Section 285 provides that "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." It has long been settled that the decision whether to make an award in any given case is left to the sound discretion of the trial court. *Codex Corp.* v. *Milgo Corp.*, 717 F.2d 622, 630 (1st Cir. 1983), *cert. denied*, 466 U.S. 931 (1984); *Maurice A. Garbell, Inc.* v. *Boeing Co.*, 546 F.2d 297, 300 (9th Cir. 1976); *Keystone Plastics, Inc.* v. *C & Plastics, Inc.*, 506 F.2d 960, 967 (5th Cir. 1975); *Uniflow Mfg. Co.* v. *King-Seeley Thermos Co.*, 428 F.2d 335, 341 (6th Cir. 1970), *cert. denied*, 400 U.S. 943 (1970). The Federal Circuit's newly fashioned legal standard undermines the congressional intent to allow trial courts wide discretion to assess attorney fees for any bad

faith misconduct before the PTO—so as to promote candor in the *ex parte* proceedings in which patents are issued or denied. In virtually every patent case the conduct of the inventor and his attorney before the PTO is closely reviewed because of the *ex parte* nature of the proceeding and the PTO's total reliance on the good faith of the inventor and his attorney.[6]

The Federal Circuit's new legal standard also undermines the valuable public service which is performed by an accused infringer (and competitor) who challenges the validity of suspect patents. By effectively denying attorney fee compensation to a patent challenger, one important incentive to litigate suspect patents is removed. Consequently, there is a loss in the integrity of the patent system and a stifling effect on free competition. *See generally, Monolith Portland Midwest Co.* v. *Kaiser Aluminum & Chemical Co.*, 407 F.2d at 294; *General Motors Corp.* v. *Devex Corp.*, 461 U.S. 648, 658, 103 S.Ct. 2061, 2064, 76 L.Ed.2d 216, 219 (1983) (concurring opinion); *Lear* v. *Adkins*, 395 U.S. 653, 670, 89 S.Ct. 1902, 1910-11, 23 L.Ed.2d 610, 622-23 (1969); *Pope Mfg. Co.* v. *Gormully*, 144 U.S. 224, 234, 12 S.Ct. 632, 636, 36 L.Ed. 414, 418 (1892).

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[6] See 37 C.F.R. §1.56, which provides in part as follows:

> (a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application . . . .
>
> * * *
>
> (d) No patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or gross negligence.

Prior to 1946, there was no provision in patent law for attorney fee awards. Then, Congress amended the statute to provide that the "court may in its discretion award reasonable attorney's fees to the prevailing party upon the entry of judgment in any patent case." 35 U.S.C. §70 (1946 ed.) This broadly-worded 1946 statute was interpreted to authorize an attorney fee award upon proof of extraordinary or exceptional circumstances. *See, e.g., Park-In Theatre* v. *Perkins*, 190 F.2d 137 (9th Cir. 1951), where the Ninth Circuit reviewed the legislative history and concluded that fee awards in patent cases were to be "bottomed upon a finding of bad faith." 190 F.2d at 142.

In 1952 Congress enacted §285 to include the phrase "exceptional cases." The change was made for purposes of clarification only, *General Motors Corp.* v. *Devex Corp.*, 461 U.S. at 653 n.8, and was intended to perpetuate the existing "bad faith" standard. *See, e.g., Purer & Co.* v. *Aktiebolaget Addo*, 410 F.2d 871, 880 (9th Cir.), *cert. denied*, 396 U.S. 834 (1969).

Section 285 does not mandate, by its terms or its legislative history, that a finding of fraud on the PTO or misconduct sufficient to invalidate the patent is a necessary precondition to classifying a case as "exceptional." Nor has any other tribunal so rigidly circumscribed the trial courts' discretion in this area, as discussed *supra*, pp. 6-7.

Rather, the "bad faith" standard for attorney fee awards adopted by the regional circuit courts, protects the public interest against unlawfully acquired patent monopolies by enforcing the law's command that inventors and their attorneys exercise an "uncompromising duty" to conduct themselves before the PTO with "the highest degree of candor and good

faith." *Kingsland* v. *Dorsey*, 338 U.S. 318 (1949); *Precision Instrument Mfg. Co.* v. *Automatic Maintenance Machinery Co.*, 324 U.S. 806, 818 (1945). That standard does not allow a deceptive patentee to escape the consequences of his willful misconduct on the narrow ground that the requisite materiality needed to prove fraud was not shown, as would the decision of the Federal Circuit.[7]

Here, the trial court's award of attorney fees to petitioner was predicated on numerous instances of bad faith conduct toward the PTO (78a): respondent "failed on a number of occasions to act in good faith toward the PTO," "totally disregard[ing] the law's command that it owed the PTO the 'highest standards of honesty and candor . . . ' " (79a-80a). This bad faith misconduct emanated from a pattern of willful misrepresentation and deception which brought Judge Cooper "extremely close to a finding of fraud" (78a). The trial court's finding of bad faith, we submit, was more than sufficient to support its attorney fee award.

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[7] The phrase "inequitable conduct," which the Federal Circuit has seemingly made the touchstone of its new patent/fee award standard was not defined by the Court. There is reason to believe the phrase is a pseudonym for fraud. *See, e.g., J.P. Stevens & Co.* v. *Lex Tex Ltd., Inc.*, 747 F.2d 1553, 1559 (Fed. Cir. 1984), *cert. denied*, 106 S.Ct. 73 (1985). *See also* the remarks of The Honorable Judge Giles S. Rich, PTC Journal (BNA), Vol. 32, No. 794 at 479 (August 28, 1986): The Federal Circuit "has been changing the name of this [fraud] defense from fraud on the patent office to fraud in the patent office to inequitable conduct on the part of the inventor or his attorney . . . ." So understood, inequitable conduct might comprehend misconduct sufficient to invalidate a patent under 35 U.S.C. §282 or 37 C.F.R. §1.56. Either construction, however, is too restrictive to advance the remedial purpose of 35 U.S.C. §285.

To enforce the patentee's duties of candor and good faith toward the PTO, the district court's judgment implementing its award should be reinstated.

## CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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# APPENDIX

## APPENDIX A

**United States Court of Appeals for the Federal Circuit**

---

**Appeal Nos. 85-2823**
**86-537**

---

REVLON, INC., ETC.,
*Appellee/Cross-Appellant,*

v.

CARSON PRODUCTS CO., ETC.,
*Appellant/Cross-Appellee.*

Before SMITH, *Circuit Judge,* SKELTON, *Senior Circuit Judge,* and BISSELL, *Circuit Judge.*

**ORDER**

A petition for rehearing having been filed in this case,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, denied.

The suggestion for rehearing in banc is under consideration.

FOR THE COURT

/s/ FRANCIS X. GINDHART
FRANCIS X. GINDHART, Clerk

Date July 25, 1986

cc: Mr. Thomas J. Macpeak
Mr. Herbert Cohen

## APPENDIX B

**United States Court of Appeals for the Federal Circuit**

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**Appeal Nos. 85-2823**
**86-537**

---

REVLON, INC., ETC.,
*Appellee/Cross-Appellant,*

v.

CARSON PRODUCTS CO., ETC.,
*Appellant/Cross-Appellee.*

### ORDER

A suggestion for rehearing in banc having been filed in this case,

UPON CONSIDERATION THEREOF, it is

ORDERED that the suggestion for rehearing in banc is declined.

FOR THE COURT

/s/ FRANCIS X. GINDHART
FRANCIS X. GINDHART, Clerk

Date 8/6/86

cc: Mr. Thomas J. Macpeak
Mr. Herbert Cohen

## APPENDIX C

**United States Court of Appeals for the Federal Circuit**

---

**Appeal Nos. 85-2823**
**86-537**

---

REVLON, INC., ETC.,
*Appellee/Cross-Appellant,*

v.

CARSON PRODUCTS CO., ETC.,
*Appellant/Cross-Appellee.*

### JUDGMENT

ON APPEAL from the U.S. District Court for the Southern District of New York in CASE NO(S). 82 Civ. 4326 (IBC)

This CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

AFFIRMED IN PART AND REVERSED IN PART

ENTERED BY ORDER OF THE COURT

/s/ FRANCIS X. GINDHART
FRANCIS X. GINDHART, Clerk

DATED JUN 30 1986

ISSUED AS A MANDATE: August 1, 1986

# APPENDIX D

## United States Court of Appeals for the Federal Circuit

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**Appeal Nos. 85-2823**
**86-537**

---

REVLON, INC., ETC.,
*Appellee/Cross-Appellant,*

v.

CARSON PRODUCTS CO., ETC.,
*Appellant/Cross-Appellee.*

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**DECIDED: October 8, 1986***

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Before SMITH, *Circuit Judge,* SKELTON, *Senior Circuit Judge* and BISSELL, Circuit Judge.

BISSELL, *Circuit Judge.*

## DECISION

The portion of the judgment of Senior Judge Cooper from the U.S. District Court for the Southern District of New York, reported at 602 F. Supp. 1071 (S.D.N.Y. 1985), holding U.S. Patents No. 4,304,244 ('244) and No. 4,373,540 ('540) invalid under 35 U.S.C. § 103 is affirmed.

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* This opinion was originally issued as an unpublished opinion on June 30, 1986, and is being published on motion by appellee/cross-appellant. Since published opinions are precedent and bind this court, changes were made for clarification purposes.

That portion of the judgment holding this issue to be exceptional within the meaning of 35 U.S.C. § 285 and awarding attorney fees and costs to Revlon is reversed.

## Background

These appeals arise from an action brought by Revlon, Inc. (Revlon) against Carson Products Co. (Carson) in the U.S. District Court for the Southern District of New York under the Declaratory Judgment Act, 28 U.S.C. § 2201, for a declaration of invalidity, unenforceability and noninfringement of Carson's '244 and '540 patents (patents in suit). Revlon filed an amended complaint seeking a declaration of invalidity, unenforceability and noninfringement of Carson's U.S. Patent No. 4,324,263 ('263). Carson denied invalidity, unenforceability and counterclaimed for infringement of the '244 and '540 patents.

Upon Carson's motion, the '263 patent was dismissed from the action on grounds of lack of justiciable controversy. Judge Cooper held the patents in suit invalid under 35 U.S.C. §§ 102 and 103 as anticipated by or obvious in view of the *Moore*[1] article, sales of Carson's Gold Magic product, and U.S. Patents No. 3,908,672 and No. 3,971,391 (L'Oreal patents). Judge Cooper found that no patent misuse occurred and no inequitable conduct occurred before the U.S. Patent and Trademark Office (PTO) during the prosecution of the '244 and '540 patents. Judge Cooper did find the case "exceptional" within the meaning of 35 U.S.C. § 285 based on Carson's "fail[ure] on a number of occasions to act in good faith toward the PTO." *Revlon*, 602 F. Supp. at 1107. Revlon was awarded attorney fees and costs.

Carson appeals the sections 102 and 103 invalidity and noninfringement determinations as well as the awarding

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[1] E.K. Moore, 28 J. Amer. Leather Chemists Assn. 245 (1983) [sic 1933] (*Moore*)

to Revlon attorney fees and costs. Revlon appeals the inequitable conduct and patent misuse determinations, and the dismissal of the '263 patent from the suit. Additionally, Revlon appeals the trial judge's failure to admit portions of Carson's corresponding Canadian patent application into evidence, to hold the patents in suit invalid under § 112 and failure to hold the patents in suit anticipated by British Patent No. 636,181 (Demuth). We address only the dispositive issues: obviousness, inequitable conduct, dismissal of the '263 patent claims, and the awarding of attorney fees and costs.

**Obviousness**

Since resolution of the obviousness/nonobviousness issue is dispositive of the validity and infringement questions, we address it first. Obviousness is a legal conclusion based on the factual inquiries mandated in *Graham v. John Deere Co.*, 383 U.S. 1 (1966); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983). Under rule 52(a), Federal Rules of Civil Procedure, our review of the findings underlying the conclusion on obviousness is limited to determining whether they were clearly erroneous in light of the record as a whole. Judge Cooper provided a detailed analysis of the scope and content of the prior art, the level of ordinary skill, the differences between the art and the claimed invention as well as the impact of the secondary considerations on the conclusion of obviousness/nonobviousness. We find no clear error.

While Judge Cooper did not articulate his analysis with minute delineation of each claim limitation, there is sufficient articulation in his findings to illustrate a clear understanding of the claimed invention and to permit review. Carson fails to identify clear error in these findings and merely asks this court to reweigh the evidence in order to make findings different from those found by Judge Cooper—a task this court will not perform. "Determining

the weight and credibility of the evidence is the special province of the trier of fact." *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*, 456 U.S. 844, 856 (1982). Carson further argues that the *Moore* article is unavailable as a prior art reference because its disclosures are in a non-analagous art. We find this position meritless. There is ample competent evidence in the record to support Judge Cooper's finding that *Moore's* discussion of dehairing animal hides was reasonably pertinent to human hair treatments and was within the field of the inventor's endeavor. *Stratoflex*, 713 F.2d at 1535, 218 USPQ at 876. Carson further argues that admission of the Eiermann affidavit used in a district court proceeding against the Food and Drug Administration amounts to reversible error. We disagree. Regardless of whether the Eiermann affidavit was properly admitted, there is competent evidence in the record describing the difference between dehairing, depilation and relaxation and the content of the *Moore* teachings. Consequently, any error in admitting this evidence at trial is harmless.

**Inequitable Conduct**

In *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 220 USPQ 763 (Fed. Cir.), *cert. denied*, ___ U.S. ___, 105 S.Ct. 95 (1984), this court articulated a balancing test for determining whether conduct during prosecution of a patent application renders the resulting patent unenforceable. In balancing the materiality of the withheld prior art against the level of intent with which the prior art was withheld from the Patent and Trademark Office (PTO), this court stated:

> [W]here an objective "but for" inquiry is satisfied under the appropriate standard of proof, and although one is not necessarily grossly negligent in failing to anticipate judicial resolution of validity, a lesser showing of facts from which intent can be inferred may be sufficient to justify hold-

> ing the patent invalid or unenforceable, in whole or in part. Conversely, where it is demonstrated that a reasonable examiner would merely have considered particular information to be important but not crucial to his decision not to reject, a showing of facts which would indicate something more than gross negligence or recklessness may be required, and good faith judgment or honest mistake might well be a sufficient defense.

*Id.* at 1363, 220 USPQ at 773.

Judge Cooper considered each allegation of inequitable conduct before the PTO, including Carson's misrepresenting guanidine hydroxide's damaging effects on hair, misrepresenting the disclosures in U.S. Patents No. 3,154,470, No. 3,908,672 and No. 3,971,391, and failing to disclose to the PTO the February 23, 1979 affidavit by Eiermann or the *Moore* article. We see no error in the findings of materiality or intent to deceive, nor do we find error in the balance achieved by Judge Cooper. With regard to Revlon's patent misuse allegation, we find it meritless. No abuse of the PTO's continuation practice was found by the trial judge. Revlon's mere bald assertion of error without any articulation of either factual or legal error is a waste of this court's resources. On this issue Judge Cooper's findings are affirmed.

**Attorney Fees**

We do find that Judge Cooper made clear error in finding this case "exceptional" within the meaning of 35 U.S.C. § 285. *See generally Reactive Metals and Alloys Corp. v. ESM, Inc.*, 769 F.2d 1578, 1582, 226 USPQ 821, 824 (Fed. Cir. 1985). This court has stated that the trial judge may exercise his discretion to award attorney fees and costs because of inequitable conduct during prosecution of the patent or misconduct during litigation. *Bayer Aktiengesellschaft v. Duphar International Research B.V.*, 738 F.2d

1237, 1242, 222 USPQ 649, 652 (Fed. Cir. 1984). Attorney fees are not to be routinely assessed against a losing party in litigation in order to avoid penalizing a party "for merely defending or prosecuting a lawsuit," *Fleischmann Distilling Corp. v. Maier Brewing Co.*, 386 U.S. 714, 718 (1967), and are awarded to avoid a gross injustice. *See generally, Rohm & Haas Co. v. Crystal Chemical Co.*, 726 F.2d 88, 222 USPQ 97 (Fed. Cir. 1984).

Moreover, the existence of any bad faith during proceedings before the PTO failed to rise to the level of inequitable conduct. Under these circumstances, no gross injustice is prevented by ordering Carson to pay Revlon's attorney fees. Consequently, proper application of the law dictates that the award of attorney fees be reversed.

**The '263 Patent**

The decision dismissing Revlon's declaratory judgment action against the '263 patent is affirmed.

*AFFIRMED IN PART AND REVERSED IN PART*

## APPENDIX E

## IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

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**Civil Action No.**
**82 CIV. 4326 IBC**

**Judge Cooper**

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REVLON, INC.
a Delaware corporation

*Plaintiff*

v.

CARSON PRODUCTS CO.,
a Georgia corporation

*Defendant.*

## FINAL JUDGMENT #85,1555

This action came on for trial before the Court, Honorable Irving Ben Cooper, Senior Judge, presiding, and the issues having been duly tried and thereafter briefed by counsel for the parties and the Court having rendered and filed an opinion dated January 30, 1985, which included findings of fact and conclusions of law, it is hereby

ADJUDGED, ORDERED and DECREED that:

1. United States Letters Patent No. 4,304,244 entitled "Hair Straightening Process and Hair Curling Process," issued on December 8, 1981 to Mario de la Guardia is invalid, void and unenforceable as to each and every claim therein; United States Letters Patent No. 4,373,540, entitled "Hair Straightening Process and Hair Curling Process and Compositions Therefor," issued on February 15,

1983 to Mario de la Guardia is invalid, void and unenforceable as to each and every claim therein; each of said Letters Patent being owned by Defendant by assignment.

2. Defendant's counterclaim is dismissed and Plaintiff's manufacture, sale and use of its hair relaxer products sold under the trademarks FABU-LAXER and CREME OF NATURE do not infringe any of the claims of said Letters Patents.

3. This case is deemed to be exceptional pursuant to 35 U.S.C. § 285, and Plaintiff is awarded reasonable attorney fees in the stipulated amount of $525,440.00.

Dated: 8-16-85, New York, New York

/s/ Irving Ben Cooper
United States District Judge

THIS DOCUMENT WAS ENTERED
ON THE DOCKET ON 8-28-85.

## APPENDIX F

REVLON, INC., a Delaware corporation,
*Plaintiff,*

v.

CARSON PRODUCTS CO., a Georgia corporation,
*Defendant.*

**No. 82 Civ. 4326 (IBC).**

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United States District Court,
S.D. New York.

Jan. 30, 1985.

As Amended March 21, 1985.

Wigman & Cohen, P.C., Arlington, Va., Cooper, Dunham, Clark, Griffin & Moran, New York City (Herbert Cohen, George C. Myers, Jr., Arlington, Va., Gerald W. Griffin, Thomas G. Carulli, New York City, of counsel), for plaintiff.

Wyatt, Gerber, Shoup, Scopey & Badie, New York City (Gerald F. Dunne, New York City, William H. Needle, Lawrence K. Nodine, Atlanta, Ga., of counsel), for defendant.

### OPINION

IRVING BEN COOPER, District Judge.

Plaintiff, an international company engaged in the business of beauty and health products and services, brings this action for a judgment pursuant to the Declaratory Judgement Act, 28 U.S.C. § 2201, declaring that two patents issued to defendant, U.S. Patent No. 4,304,244 (" '244 patent") and U.S. Patent No. 4,373,540 (" '540 patent") for a hair straightening and curling process are invalid,

unenforceable and not infringed. Defendant, a company based in Savannah, Georgia manufactures cosmetics for the black ethnic market, and counterclaims for injunctive relief and damages, alleging that two hair straightening products made by plaintiff sold under the trademarks "FABULAXER" and "CREME OF NATURE" infringe defendant's patents.[1] The case was tried to the Court on January 3 to January 13, 1984 and was bifurcated (the issue of liability to be determined first); damages reserved pending our decision thereon. At the conclusion of the trial decision was reserved. Post trial memoranda and proposed findings of fact and conclusions of law were filed on March 7 and 8, 1984; replies were filed on April 2 and 3, 1984.

FACTS

A prerequisite to a determination of the issues presented by this conflict requires at least a brief analysis of the structure of human hair and the chemistry of formulas created to treat it.

**A. The Structure of Human Hair**

The molecules of human hair are composed of keratin, a natural fibrous protein containing 18 amino acids which are organic compounds that compose protein molecules. (Ex. 35)[2] A vertical strand of the keratin molecule is called a polypeptide; the polypeptides are cross-linked by hydrogen bonds on one plane and by two sulpher atoms on

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[1] The original complaint filed on July 2, 1982 sought declaratory relief for the '244 patent and for U.S. Patent No. 4,324,263 (" '263 patent"). An amended complaint adding the '540 patent was filed on April 20, 1983. On July 19, 1983, Judge Weinfeld, to whom the case was originally assigned, granted defendant's motion to dismiss the '263 patent from this action. The case was transferred to us from Judge Weinfeld on December 20, 1983.

[2] Throughout this opinion, the letters "Ex." followed by a number in parentheses indicate a particular exhibit. The same applies to a "Tr." which refers to a specific page number in the trial transcript.

another, the latter creating very tough disulphide bonds called cystine. (Tr. 69-70; Ex. 38I, Paper 6, Du Yung Hsiung article at 1156; Ex. W). The strength of the cystine is responsible for maintaining the natural configuration of a person's hair. It follows that in order to permanently change the hair's characteristics, the cystine must be broken down. The application of highly alkaline substances accomplishes this goal, making the hair malleable. At that point, it may be reset into a new configuration; the broken disulphide bonds will reform either by leaving single sulfer bonds with excess unattached sulfer atoms in the hair, or the excess sulfer atoms will reconnect with the bonded sulfer atoms in the new hair shape. (Ex. 246I, Hendrix at 30). In this manner, one with naturally curly hair is able to get straight hair and one with naturally straight hair obtains a permanent wave. The challenge centers upon the substances which most effectively bring about the desired result.

**B. Chemistry of Formulas that Treat Hair**

In the early 1970's several methods were employed to straighten curly hair. One approach involved the application of pressing oil and a hot comb to the hair; this resulted in steaming and stretching hair. (Tr. 57-58; 307). Since this formula lacked alkalinity, it broke only the hydrogen bonds (Ex. 38I, Paper 6, Du Yung Hsiung article at 1156), not the cystine, causing only a temporary alteration along with some damage to the hair. (Tr. 58).

A second formula called "Vigorol" contained ammonium thioglycolate or sulfite as its key ingredient.[3] Its main drawback was that a few days after application the hair often reverted to its original curly state. (Tr. 307-08).

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[3] Throughout this opinion, certain chemical ingredients come into play. Where they are not essential in any sense to the issues we compelled to resolve, we have refrained from furnishing details with respect to their make-up.

The most effective hair straightening formula used at that time was sodium hydroxide, commonly referred to as "lye." Sodium hydroxide has a very high "pH"—meaning the measurement of the acidity or alkalinity of a substance on a scale from one to fourteen in which one is the most acidic and fourteen is the most highly alkaline. (Tr. 63). The pH of sodium hydroxide approaches fourteen (Tr. 133), and is very successful in breaking down the tough disulphide bonds, changing the configuration of the fibers when stress (by combing) is applied to the hair. The two main competitors in the sodium hydroxide hair straightening market in the early 1970's were plaintiff and Johnson Products Company.

Cognizant of the problem of scalp irritation that resulted from applying sodium hydroxide to the head and desirous of competing in the hair straightening market, Mr. Mario de la Guardia, president of the defendant corporation, envisioned introducing a straightening product with a neutral pH. To that end, he contacted the Southern Research Institute ("SRI") in Birmingham, Alabama, a non-profit research organization doing research and development for defendant over 20 years. (Tr. 1147-48). The three year research effort at SRI to develop a non-alkali sulfite relaxer similar to compounds used for hair waxing proved unsuccessful. (Tr. 309-11; 1039-45).

In 1975, the Federal Trade Commission ("FTC") issued an order that altered the balance of competition in the hair straightening field. The order required that all hair relaxers containing either sodium hydroxide or potassium hydroxide be labeled as containing lye.[4] (Stipulated Fact 23; Tr. 312). As should have been expected, consumer reaction to products with that label was negative in the

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[4] The order also required warnings on all boxes, advertisements and promotions of sodium and potassium hydroxide products: *e.g.*, "might irritate the scalp;" "keep away from children;" and "keep away from the eyes." (Tr. 312)

extreme. (Stipulated Fact 24). Intent upon obtaining a competitive advantage in the market of hair straighteners, Mr. de la Guardia sought an effective alkaline formula that did not contain sodium or potassium hydroxide. (Stipulated Fact 25).

The president of the defendant company was successful in his endeavor. After a weekend of experimentation in October 1976 (Tr. 453), he discovered that a formula combining a guanidine salt, an extremely alkaline salt, such as guanidine carbonate and a water soluble hydroxide such as calcium hydroxide would create the desired objective. Irritation, efficacy and stability tests using Mr. de la Guardia's formula were conducted at SRI and elsewhere, and attained positive results. (Tr. 328-31). On June 9, 1977, defendant filed its first patent application for the product; in May 1978, the hair straightener "Dark and Lovely" was introduced on the market. (Stipulated Fact 3; Tr. 330). The label affixed to the box of the product read "contains no lye." On December 9, 1981, the '244 patent was issued to defendant. (Amended Complaint ¶ 4).

"Dark and Lovely" achieved a high sales rate (Ex. K) which negatively impacted consumer sales of plaintiff's products containing sodium hydroxide. Consequently, before any patent had issued on defendant's product, plaintiff and several other competitors in the market began selling hair straighteners with formulas similar to that produced by defendant. (Ex. 246II, Goldberg, at 95-97; Ex. 246II, Bottner, at 18-19; Ex. 246II, Roppolo, at 10-11) Revlon's competitive products are called "FABU-LAXER" and "CREME OF NATURE." Johnson Products' relaxer is named "Gentle Treatment,"[5] and one put out by Posner

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[5] On September 13, 1982, a license agreement was entered into between defendant and Johnson Products (Ex. L) providing, *inter alia*, that defendant would receive a royalty payment of four percent of the net sales of "Gentle Treatment." This amounted to $300,000 in 1982-83, the first year of the license; $150,000 has already been paid to

is called "Perfect Performance." (Ex. 246II, Roppolo, at 10).

**C. Defendant's Patents**

Mr. de la Guardia created his formula by combining guanidine carbonate, a commercially available salt, with calcium hydroxide in water. He discovered that under proper conditions, the two chemicals break apart and reform into guanidine hydroxide and calcium carbonate. As a salt, calcium carbonate precipitates out of the solution leaving guanidine hydroxide in solution. As a practical matter, however, the reaction between guanidine carbonate and calcium hydroxide is an equilibrium reaction, *i.e.*, the two chemicals break apart and form guanidine hydroxide and calcium carbonate which (the newly formed guanidine hydroxide and calcium carbonate) in turn quickly break apart and reform into guanidine carbonate and calcium hydroxide. Therefore, the reaction must be driven toward completion; the right conditions must be employed to ensure as much precipitation of the calcium carbonate as possible, leaving more guanidine hydroxide. (Ex. 234, col. 3, lines 54-59; Ex. 235, col. 3, lines 56-61)

According to defendant, proper conditions include: (1) reaction temperatures between 35°F and 140°F (Ex 234, col. 4, line 33; Ex. 235, col. 4, line 35); (2) use of the solution within 48 hours (Ex. 234, col. 4, line 38; Ex. 235, col. 4, line 39); (3) the presence of hydroxide in at least a stoichiometric[6] amount, even up to two to five times the

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defendant, the remaining $150,000 is presently in an escrow account awaiting our determination. (Tr. 366-67)

[6] "Stoichiometric" means that the particular amount of molecules of one chemical in a substance combine with the same number of molecules of another chemical in the same substance to form a product (Tr. 612); the two chemicals completely react with each other. (Tr. 156)

Since carbon dioxide exists in the air, there is a risk that there will be more carbon in the reaction product than was produced by the guanidine carbonate. Therefore, excess hydroxide is preferred since it

stoichiometric amount (Ex. 234, col. 4, lines 41-45; Ex. 235, col. 4, lines 42-46); (4) the reaction product should contain one to fifty percent guanidine hydroxide by weight, most preferably between four to seven percent by weight (Ex. 234, col. 5, lines 36-49; Ex. 235, col. 5, lines 39-52); (5) the guanidine salt should contain 1.2 to 40 percent by weight, preferably 5 to 8 percent by weight (Ex. 234, col. 5, lines 52-64; Ex. 235, col. 5, lines 55-67); (6) a pH value in the reaction product above 11.8, preferably about 12.5 to 13.5 (Ex. 234, col. 6, lines 42-45; Ex. 235, col. 6, lines 45-48); (7) a treatment time of 5 to 45 minutes; preferably 20 to 30 minutes (Ex. 234, col. 6, lines 46-58; Ex. 235, col. 6, lines 49-61); and (8) use of a neutralizing agent (such as a shampoo) after treatment (Ex. 234, col. 6, lines 64-66; Ex. 235, col. 6, lines 67-68).

Conventional additives may be added to defendant's formula (Ex. 234, col. 4, line 63; Ex. 235, col. 4, line 65), as well as thiourea as an accelerator where there are lower levels of guanidine hydroxide in the reaction product (Ex. 234, col. 6, lines 26-36; Ex. 235, col. 6, lines 29-39). Additionally, according to defendant's patent specifications, lithium, barium or strontium hydroxide may be used as a starting ingredient instead of calcium hydroxide; other guanidine salts, particularly guanidine sulfate, may be used in place of guanidine carbonate. (Ex. 234, col. 3, lines 46-49 and col. 4, lines 12-14; Ex. 235, col. 3, lines 48-51 and col. 4, lines 14-16)

Defendant's product is sold in the form of a kit which includes two containers. The relaxer container stores calcium hydroxide in a creme base and the activator container holds guanidine carbonate in liquid form. (Tr. 606, Ex. J) The two are mixed, the solution then is applied to the hair. After 5 to 45 minutes, depending upon the coarseness of the user's hair and the amount of straightening desired,

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will combine with any excess carbon. (Ex. 234, col. 4, lines 57-61; Ex. 235, col. 4, lines 59-63)

the solution is removed, and the hair is washed with water, followed by a neutralizing shampoo, then treated with a protein conditioner to make the hair more manageable and return the oils to it. (Tr. 292) Combing completes the effort. (Ex. 234, col. 2, lines 57-68 and col. 3, lines 1-2 and 18-25; Ex. 235, col. 2, lines 59-68 and col. 3, lines 1-4 and 19-27)

Defendant's '244 patent (Ex. 234), issued on December 9, 1981, contains 23 claims. Claim 1 is representative of the process claims:

> A method of treating hair to cause the hair to maintain a desired configuration, said method comprising contacting the hair while in said desired configuration with an aqueous composition comprising, as the principal active ingredient, guanidine hydroxide, wherein said guanidine hydroxide is formed by reacting calcium hydroxide and guanidine carbonate, and thereafter removing said composition from the hair.

Ex. 234, col. 19, lines 9-16. Claim 7 is representative of the composition claims:

> A composition for treating hair when applied thereto, comprising a water-soluble inorganic hydroxide ingredient and a water-soluble guanidine salt ingredient, said ingredients being selected such that reaction products thereof are guanidine hydroxide and a substantially water-insoluble inorganic salt formed by the cation of said inorganic hydroxide ingredient and the anion of said guanidine salt ingredient whereby the reaction producing said guanidine hydroxide will be driven towards completion, and said inorganic hydroxide ingredient being present in at least a stoichiometric amount relative to said guanidine salt ingredient.

Ex. 234, col. 20, lines 1-12.

None of the claims of the '244 patent recite time or temperature parameters; only claim 6 sets forth an operating range of concentration of 1 to 50 percent guanidine hydroxide. The remaining claims constitute process or article claims reciting the product guanidine hydroxide and/or the ingredients that may be used to bring about the reaction product.

The second patent, '540, was issued to Mr. de la Guardia on February 15, 1983. (Ex. 235) it recites a hair treating composition to relax hair, and, according to Mr. de la Guardia, broadly covers guanidine hydroxide regardless of how it is made. (Tr. 469)

The '540 patent contains two claims. Claim one recites:

> A composition for treating hair comprising an effective amount of guanidine hydroxide as the active ingredient, the pH of said composition being at least 11.8, and said composition being applied to said hair and being removed therefrom after a predetermined amount of time.

(Ex. 235, col. 20, lines 4-10) Claim two further specifies that the concentration of guanidine hydroxide ranges from 2 to 20 percent by weight. (Ex. 235, col. 20, lines 11-13)

ISSUES

(1) Whether defendant's '244 and '540 patents are invalid under 35 U.S.C. § 102 (anticipation), 35 U.S.C. § 103 (obviousness) or 35 U.S.C. § 112 (indefiniteness)?

(2) Whether defendant fraudulently procured the patents, rendering them invalid?

(3) Whether defendant misused the '244 patent?

(4) Whether plaintiff infringed any of defendant's claims?

(5) Whether plaintiff and/or defendant is entitled to attorneys fees and expenses?

LAW

Before addressing the substantive legal issues in this case, we must decide several evidentiary matters.[7]

**A. Admissibility of the "Eiermann Affidavit"**

In August 1977 defendant unsuccessfully petitioned the Food and Drug Administration ("FDA") for trade secret status for its calcium hydroxide and guanidine carbonate ingredients in "Dark and Lovely." Thereafter, defendant sued the FDA in the United States District Court for the Southern District of Georgia for review of its administrative determination. The government submitted a motion for summary judgment which was supported by the affidavit of Heinz J. Eiermann (verified February 23, 1979), then Director of the Division of Cosmetics Technology, Bureau of Foods, FDA. (Ex. 60 for identification) The affidavit set forth Mr. Eiermann's expert qualifications and responsibilities, his familiarity with defendant's request, the procedures followed by the FDA during its official inquiry, and the agency's findings as they relate to a review of relevant scientific literature. Defendant objects to the admission of this exhibit before us on the grounds of hearsay and the mental processes of a quasi-judicial officer.

Fed.R.Evid. 803(8)(C) allows the admission of "[r]ecords, reports, statements, or data compilations, in any form, of public offices or agencies, setting forth . . . factual findings resulting from an investigation made pursuant to authority granted by law, unless the sources of information or other circumstances indicate a lack of trustworthiness." The burden of showing that the proof is untrustworthy falls on the party opposed to it. *See United States v. Paducah Towing Co., Inc.*, 692 F.2d 412, 421 (6th Cir. 1982). Admissibility under this provision is within the broad discre-

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[7] Some disputed evidentiary questions are addressed in the sections of this opinion to which they are applicable.

tion of the district court, *see Miller v. New York Produce Exchange*, 550 F.2d 762, 769 (2d Cir.), *cert. denied*, 434 U.S. 823, 98 S.Ct. 68, 54 L.Ed.2d 80 (1977) and courts have interpreted it quite liberally. *Baker v. Elcona Homes Corp.*, 588 F.2d 551, 557 (6th Cir. 1978), *cert. denied*, 441 U.S. 933, 99 S.Ct. 2054, 60 L.Ed.2d 661 (1979).

We find that the Eiermann affidavit satisfies the requisites of Rule 803(8)(C). It is clear that the affidavit was a statement by one who was in a public office, acting on behalf of the office, giving findings in accordance with an investigation conducted in determining the trade secret status of a product on the market. We disagree with defendant's argument that Mr. Eiermann's statements were not factual or trustworthy. "Factual findings" as used in the rule encompass evaluative reports of public agencies, *Zenith Radio Corp. v. Matsushita Electric Industrial Co., Inc.*, 505 F.Supp. 1125, 1145 (E.D.Pa. 1980); Weinstein's *Evidence*, ¶ 803(8)[03], at 803-250, and inferences drawn from facts. *United States v. Paducah Towing Co., Inc., supra*, at 420. Indeed, conclusory statements do not even render an item of evidence *ipso facto* inadmissible. *Miller, supra*, at 769. We conclude that Eiermann's analysis of the chemistry of "Dark and Lovely" and his comparison to the chemistry of other relevant arts fall within the Rules' expanded definition of "factual findings."

We also find that the Eiermann affidavit meets the test of trustworthiness for which the Advisory Committee on Proposed [FRE] Rules suggested four indicia: (1) the timeliness of the investigation; (2) the special skill or experience of the official; (3) whether a hearing was held or whether all sources were examined; and (4) possible motivational problems, *e.g.*, impartiality. *See Baker, supra*, at 558; *In re Multi-Piece Rims Products Liability Litigation*, 545 F.Supp. 149, 151 (W.D.Mo.1982); *see also Zenith Radio Corp., supra*, at 1146-47 (additional seven factors named).

With respect to the instant disputed document, timeliness is not an applicable factor for us to consider. (*Cf. Baker, supra,* where police officer who wrote report arrived at scene of accident minutes after its occurrence.) We find that Mr. Eiermann, as director of one of the divisions of the FDA, was an experienced and impartial official[8] who made a statement under oath; indeed, in its brief on the issue of trade secret status, defendant identified him as an expert in the field of cosmetology. (Ex. 50 at 8)

We further find that defendant has not met its burden of proving Mr. Eiermann failed to consider all relevant sources.

We also are constrained to find unimpressive defendant's argument against the admissibility of the affidavit on the ground that it constitutes the mental processes of a quasi-judicial officer. Even if Mr. Eiermann could be considered a quasi-judicial officer—a conclusion we find very doubtful—it is well-settled by law that whether "the [investigatory] proceedings could also be labeled a 'quasi-judicial hearing' is of no consequence in this regard." *United States v. School District of Ferndale,* 577 F.2d 1339, 1354 (6th Cir. 1978) (findings of an HEW Hearing Examiner in prior proceeding admissible); *see Litton Systems, Inc. v. American Telephone and Telegraph Co.,* 700 F.2d 785, 818 (2d Cir. 1983), *cert. denied,* ___ U.S. ___, 104 S.Ct. 984, 79 L.Ed.2d 220 (1984) (various FCC decisions admissible as factual findings resulting from investigations).

Accordingly, we overrule defendant's objection and find the Eiermann affidavit admissible.

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[8] As a government official, Mr. Eiermann had no pecuniary or other interest whatever in whether or not trade secret status issued.

**B. Admissibility of the Responses of the Canadian Patent Office to Defendant's Patent Application**

Defendant objects to the introduction into evidence of plaintiff's exhibit 215, the responses of the Canadian patent office to defendant's patent application in that country for "Dark and Lovely." During the prosecution of that application corresponding to the '244 patent herein, the Canadian Examiner cited and relied upon a L'Oreal patent as pertinent prior art and advised the defendant to revise its specifications so as to distinguish its hair relaxing formulation from that of L'Oreal.

Carson seeks to exclude this evidence under the ruling in *Timely Products Corp. v. Arron,* 523 F.2d 288 (2d Cir. 1975). In *Timely Products,* the patent applicant sought to include in evidence nine foreign patents on the grounds that corresponding foreign patents are strong evidence of nonobviousness. This request was denied by our Circuit Court since there is no international standardized inquiry into patentability, and therefore the issuance of a United States patent carries with it a presumption of validity under 35 U.S.C. § 282 that cannot be destroyed by determinations made by foreign patent offices. *Id.* at 295.

Similarly, in *Esso Research Corp. v. Kahn Co.,* 379 F.Supp. 205 (D.Conn. 1974), *aff'd,* 513 F.2d 1341 (2d Cir. 1975), the district court allowed into evidence certain correspondences between Esso and the German patent office regarding the prior art. In so holding, the Court stated:

> [I]n considering what Esso submitted to the Patent Authorities in Germany as its claim this Court is primarily concerned just with Esso's own admissions of the scope and content of the prior art and second with its analysis of the difference between the prior art and its claim for a patent, not with the decision made . . . with respect to patentability.

*Id.* at 213.

In accordance with the law enunciated in *Timely Products,* we are compelled to find exhibit 215, which deals with reactions by the Canadian patent office, inadmissible.

**C. Plaintiff's 10-K Form**

At trial, plaintiff objected to the introduction by defendant of exhibit RR, plaintiff's 10-K form covering its business activities, on the ground of irrelevancy. However, defendant sought to admit it only for the limited purpose of setting forth defendant's business activities. (Tr. 1239) We reserved decision on this issue and now conclude that for the purpose for which defendant requests its introduction, exhibit RR is admissible. *See* Fed.R.Evid. 401, 402 and 403.

**D. Defendant's Confidential Exhibit**

In defendant's Response to Plaintiff's Post-Trial Memorandum, defendant submitted as Exhibit A a sealed envelope stamped "Confidential—Attorneys Only," containing a document also marked in upper case letters "CONFIDENTIAL." Defendant contends that this document contains admissions by plaintiff of the validity of defendant's patents, estopping plaintiff from making many of its arguments in the instant litigation.

The confidential nature of the sealed document precludes us from addressing defendant's arguments in this opinion. We have examined the document, the defendant's contentions and the law applicable thereto and find that the document has no bearing whatever on the vital issues this case presents.

**E. Defendant's Objections to Plaintiff's Proposed Supplemental Findings of Fact and Conclusions of Law**

On May 7, 1984, we received a letter from plaintiff dated May 3, 1984 requesting that we disregard all arguments and additional information in defendant's objections to plaintiff's Proposed Supplemental Findings of Fact and Conclusions of Law on the grounds that, *inter alia,*

defendant used the pretext of objections to file excessively additional arguments and introduce supplemental evidence. Defendant's reply thereto dated May 11 (received by us on May 14) stated that defendant merely organized the evidence by cross-referencing to relevant record evidence and that no supplemental evidence was introduced.

Our review of the objections convinces us that they should not be disregarded. First, we find no supplemental evidence in the objections. Second, defendant's alleged "additional arguments" are no more than explanations of its objections, restating contentions made throughout defendant's papers. Plaintiff also uses its objections to restate some of its previous arguments, albeit to a much more limited degree. Since the evidence presented by defendant in its final post-trial paper offers nothing new, we have no hesitancy in refusing to disregard its objections to plaintiff's Proposed Supplemental Findings of Fact and Conclusions of Law.

## II. THE SUBSTANTIVE LEGAL ISSUES

### A. Burden of Proof in Cases Alleging Patent Invalidity or Unenforceability

Under our system of government, the inventor of a novel item or process who wishes to monopolize his or her work applies to the United States Patent and Trademark Office ("PTO") for a patent. The office is staffed by qualified experts who determine whether the invention is patentable. *See Howes v. Great Lakes Press Corp.*, 679 F.2d 1023, 1028 (2d Cir. 1982); *Georgia-Pacific Corp. v. United States Plywood Corp.*, 258 F.2d 124, 133 (2d Cir.), *cert. denied*, 358 U.S. 884, 79 S.Ct. 124, 3 L.Ed.2d 112 (1958). If a favorable disposition is granted after all the research has been completed, the "patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be pre-

sumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it." 35 U.S.C. § 282. *See Merck & Co., Inc. v. Olin Mathieson Chemical Corp.*, 253 F.2d 156, 164 (4th Cir. 1958).

This statutory presumption of validity, which generally requires clear and convincing evidence to be overcome, *see Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 956 (Fed.Cir.1983); *Warner-Jenkinson Co. v. Allied Chemical Corp.*, 477 F.Supp. 371, 382 (S.D.N.Y.1979), *aff'd*, 633 F.2d 208 (2d Cir. 1980), is weakened in some circumstances. For instance, if an applicant fails to provide the PTO with the relevant prior art, *see Graham v. John Deere Co.*, 383 U.S. 1, 18, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966); *Raytheon, supra*, at 956; *Douglas v. United States*, 510 F.2d 364, 369 (Ct.Cl. 1975); *Julie Research Laboratories, Inc. v. Guildline Instruments, Inc.*, 501 F.2d 1131, 1136 (2d Cir. 1974); *Warner-Jenkinson, supra*, at 382-83, *aff'd*, 633 F.2d 208 (2d Cir. 1980); *Kahn v. Dynamics Corp.*, 367 F.Supp. 63, 67 (S.D.N.Y. 1973), *aff'd*, 508 F.2d 939 (2d Cir. 1974), *cert. denied*, 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975), or if the PTO was given incorrect data, *see, e.g., Ansul Co. v. Uniroyal, Inc.*, 301 F.Supp. 273, 280 (S.D.N.Y. 1969), *modified*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018, 92 S.Ct. 680, 30 L.Ed.2d 666 (1972), or deceived as to the significance of correct data, *see Kahn, supra*, at 71, *aff'd*, 508 F.2d 939 (2d Cir. 1974), *cert. denied*, 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975), the presumption is more easily rebuttable. Furthermore, several courts have taken notice of the huge increase in recent years of the numbers and types of patent applications, leaving the PTO heavily burdened and overworked; consequently, less strength has been attached to the statutory presumption of validity. *See Kahn, supra*, 508 F.2d at 942, *cert. denied*, 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975); *Ansul Co., supra*, 301 F.Supp. at 281, *modified*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*,

404 U.S. 1018, 92 S.Ct. 680, 30 L.Ed.2d 666 (1972). Nevertheless, 35 U.S.C. § 282 assigns the burden of persuasion to the challenger of the patent, in the instant case Revlon, which retains the burden of it on the merits throughout the case. *See Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534 (Fed.Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 773 (Fed.Cir. 1983).

**B. The Anticipation Doctrine**

The doctrine of anticipation prohibits the granting of a patent to an inventor when, *inter alia*, the invention was known or used by others or was patented or described in a printed publication in this or a foreign country at least one year before the patent applicant invented it. 35 U.S.C. § 102. The statute calls for an identical disclosure or description between the subject matter sought to be patented and the prior art. *See* 35 U.S.C. § 103. Courts have found identity when a single prior reference, *see Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed.Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771 (Fed.Cir. 1983); *In re Marshall*, 578 F.2d 301, 304 (C.C.P.A. 1978); *Soundscriber Corp. v. United States*, 175 Ct.Cl. 644, 360 F.2d 954, 960 (Ct.Cl. 1966); *Dielectric Laboratories v. American Technical Ceramics*, 545 F.Supp. 292, 295 (E.D.N.Y. 1982); *Warner-Jenkinson Co., Inc. v. Allied Chemical Corp.*, 477 F.Supp. 371, 383 (S.D.N.Y. 1979), *aff'd*, 633 F.2d 208 (2d Cir. 1980), "clearly and unequivocally disclose[s] the claimed compound or direct[s] those skilled in the art to the compound without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference." *In re Arkley et al.*, 455 F.2d 586, 587, 59 CCPA 804 (1972) (emphasis in original). In other words, if the claims of the patent application are substantially equivalent to the prior art, the doctrine of anticipation is applicable. *See In re Schaumann*, 572 F.2d 312, 317 (C.C.P.A. 1978). Specifically with regard to chemical compounds, anticipation requires that the prior art recite means

of preparation of the compound as well as a minimum of one significant useful property. *Warner-Jenkinson Co., supra,* at 383 (Weinfeld, J.), *aff'd,* 633 F.2d 208 (2d Cir. 1980).

Judge Simon H. Rifkind, acting in the capacity of Special Master in *Helene Curtis Industries v. Sales Affiliates,* 233 F.2d 148 (2d Cir. 1956) summed up the doctrine of anticipation when he wrote:

> It is of course elementary in the patent law that generic claims . . . cannot survive where a species within the claimed genus has been invented, known or used by others prior to the patentee's date of invention. . . . Prior invention, disclosure or use of a species anticipates the genus. . . .
>
> . . . . .
>
> The question always is whether the inventive act is of sufficient magnitude to justify the extension of a legal monopoly for the matter covered by the claims. . . . [I]t is only where, other requisites being present, the patentee has found a point or points at which some result differing in kind—and not merely in degree—from the results achieved by the prior art, that an inventive act may be said to exist.

*Id.* at 152 (citations omitted).

Unlike the doctrine of obviousness which we discuss *infra,* anticipation does not require that the prior references be analogous or even relevant arts to the invention. D. Chisum, 1 Patents § 3.02(3) at 3-9. We now proceed to examine the forms of prior art that plaintiff alleges anticipated defendant's formula.

**1. The Moore Article**

In 1933 E.K. Moore published an article entitled "The Influence of Various Nitrogen Compounds on Unhairing with Calcium Hydroxide Suspensions." It examined ways

of removing hair from dead animal skins to make leather. According to the author, when .32 moles (a certain number of molecules) of one of 15 nitrogen compounds is placed in one thousand ccls. of calcium hydroxide at room temperature, the dehairing of the hides is accelerated. One of the 15 compounds Moore discussed was guanidine, and the .32 moles was equivalent to 1.88 percent free base guanidine; the reaction produced 2.43 percent guanidine hydroxide. (Ex. 24 at 249, 258; Tr. 815-17) Moore produced the free base chemical by thoroughly shaking guanidine carbonate in water, then adding an excess amount of calcium hydroxide. He noted that calcium carbonate is formed and precipitates, leaving the free base in water. (Tr. 817; Ex. 24 at 247-48) Moore left the solution on the hides for several days in order to accomplish the dehairing.

Before addressing our conclusion on the anticipatory effect of Moore, we must emphasize the fact that defendant failed to give the Moore article to the PTO; instead, defendant gave the office two articles which discussed dehairing of animal hides. One article, written by Martin M. Rieger and Stanley Brechner, listed Moore among at least 240 other references; the second, by Richard Barry, listed Moore and 140 other references (Tr. 1001-02; Ex. 38I, paper 6, Supplemental Amendment)—a method of listing generally resorted to by those bent upon engaging in the practice of deceit or sharp practices. We cannot say, however, we are convinced such an approach was adopted by this defendant. The failure of defendant to separately present Moore in his full stature to the PTO weakens the presumption of validity to which the patent is generally entitled with regard to this prior reference. *See Graham, supra,* at 18, 86 S.Ct. at 694; *Raytheon, supra,* at 956; *Douglas, supra,* at 369; *Julie Research Laboratories, supra,* at 1136; *Warner-Jenkinson, supra,* at 382-83, *aff'd,* 633 F.2d 208 (2d Cir. 1980); *Kahn, supra,* at 67, *aff'd,* 508 F.2d 939 (2d Cir. 1975), *cert. denied,* 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1976).

We find that the Moore article did anticipate defendant's product. Both used the same chemicals; defendant's patent advised a concentration of guanidine carbonate of 1.2 to 40 percent and Moore suggested 1.88 percent; the temperature range for defendant's formula varies from 35°F to 140°F while Moore's experiments were conducted at room temperature; both suggest an excess of calcium hydroxide. The only real difference between the two is the time that the formula is left on the hair, a fact we find that one skilled in the art would readily recognize as a distinction between depilation and hair relaxation. The evidence adduced at trial established that if an alkaline formula is retained on hair for a short amount of time, the cystine bonds in the hair will break and the hair configuration reforms; if the formula is kept on for a longer time, it will do much more than merely break the bonds—the powerful chemicals will remove the hair altogether. (*See* Ex. 60, ¶13, Affidavit of Heinz J. Eiermann, director of Division of Cosmetic Technology, Bureau of Foods, FDA ["[T]he identical ingredients may cause little structural breakdown, as with a hair wave or hair relaxer, or total hair destruction, as with a depilatory. Consequently, a basic chemical reaction which occurs in a depilatory also occurs, to a lesser extent, in hair relaxers or hair waves. There is an interrelationship between all such products."]; Ex. 246I, deposition of Charles Raymond Hendrix, Jr., Project Manager of Research and Development at Carson Products Co., at 40 [whether guanidine compounds with calcium hydroxide remove hair or merely relax it is only a question of how long the compounds remain in contact with the hair]; Tr. 172-75).

Further support for our conclusion that one skilled in the art of hair straightening would believe that Moore anticipated defendant's product despite the difference in time that the formula is applied in each is found in the testimony at trial of plaintiff's witness, Mr. Gus Kass, who we found extremely impressive and positively credible; we

adopt his testimony in full. Mr. Kass, a consulting chemist with his own firm involved in the cosmetic and personal care industry (Tr. 793), testified:

> Q: Is there any difference, in your opinion, Mr. Kass, as to the manner by which Moore produces his free base guanidine in aqueous solution and the manner by which Carson describes and claims how to produce guanidine hydroxide:
>
> A: There is no difference.
>
> . . . . .
>
> Q: How did you arrive at that opinion, Mr. Kass . . .?
>
> A: Well, the Moore article very much parallels the Windus and Turley article which was published only about 4 years after Moore. In both cases the article was concerned with the dehairing of hides. In both cases a lime bath was used. In both cases additives were added to speed up the dehairing activity . . . ,
>
> When I saw the Windus and Turley article, having already some knowledge of the chemistry of hair, it struck me immediately as an obvious method to explore for a possible method of permanent waving of hair.
>
> The Moore article does and would strike me in exactly the same manner.
>
> Q: In your opinion, would a cosmetic chemist of ordinary skill react the same way?
>
> A: Yes.

(Tr. 828-31)

Defendant argues that Moore sets forth 145 possible nitrogen compounds of which 15 were reported to be successful (including guanidine) and that such a wide spectrum of possibilities cannot anticipate a specific formula. *See In*

*re Luvisi*, 342 F.2d 102, 107-08, 52 CCPA 1063 (1965) (quoting *In re Garvey*, 41 U.S.P.Q. 583, 584 (Patent Office Board of Appeals 1939) ("The likelihood of producing a composition [where the disclosed references revealed a very great number of possible permutations] would be about the same as the likelihood of discovering the combination of a safe from a mere inspection of the dials thereof.")) Focusing on this issue, the United States Court of Customs and Patent Appeals in *In re Ruschig*, 343 F.2d 965, 994, 52 CCPA 1238 (1965), found that the possibility of 48 compounds resulting from the unguided teachings of the prior art was too broad a class to anticipate. However, the same court in *In re Petering*, 301 F.2d 676, 681, 49 CCPA 993 (1962) found that the broad generic disclosure of compounds also described specific preferences and a relatively small number of variations, so that in actuality the class was limited to only 20 compounds, each of which would be envisaged by one skilled in the art. *See also In re Sivaramakrishman*, 673 F.2d 1383, 1384 (C.C.P.A. 1982); *In re Schaumann, supra*, at 316.

Moore impressively taught that only 15 nitrogen compounds were successful in accelerating depilatories, one of which was guanidine. We thus find that the mention of 14 other possibilities, or 130 additional nitrogen compounds designated as unsuccessful in achieving depilation, does not negate our finding of anticipation.

Defendant also contends that the principal active ingredient declared by Moore was calcium hydroxide, and that guanidine was merely used as an accelerator. Therefore, defendant argues, it could not anticipate defendant's products which used guanidine hydroxide as the principal active ingredient. We reject this argument and find that the principal active ingredient responsible for the effect of hair relaxation in the reaction between a guanidine salt and a water soluble hydroxide is uncertain; defendant only hypothesizes that guanidine hydroxide deserves the credit. Indeed, in its own patent specifications, defendant admits

its uncertainty by stating, "The principal active ingredient in the above-described reaction product *appears to be* guanidine hydroxide." (Ex. 234, col. 5, lines 9-10; Ex. 235, col. 5, lines 11-12) (emphasis ours).

Further, others disagree with defendant's conclusion with which we are now dealing. For instance, Marvin Goldberg, director of research and development for Revlon Research Center, believes that the hydroxyl ions that are released when guanidine carbonate and calcium hydroxide react together are the major contributors to effectively straighten hair. (Ex. 246II, Goldberg, at 58) Similarly, Ronald W. Baer, a group leader in hair products development at Cheseborough-Ponds, gave it as his opinion that hydroxyl ions are the agents bringing about relaxation, and that the guanidine carbonate/calcium hydroxide reaction only serves to provide a source of hydroxyl ions. (Ex. MM at 90) This conclusion is concurred in by Hendrix (Ex. 246I, Hendrix, at 37); furthermore, Dr. William Elliott Meyers, head of the biotechnology division at SRI (Ex. 246I, Meyers, at 6), even goes so far as to say that the initial hydroxide ingredient, *e.g.*, calcium hydroxide, by itself would relax hair given enough time. (*Id.* at 110) Mr. Baer also deposed that calcium hydroxide can relax hair in "an hour [but] it didn't do a very good job." (Ex. MM at 89)

We do not undertake to decide a question on which scientists disagree. We merely conclude that one who is skilled in the art of hair relaxation would know of Moore's experiments with guanidine carbonate and calcium hydroxide and would also know that the particular chemical responsible for reacting on the hair befuddled chemists, compelling the conclusion that the chemical formula used in Moore would relax hair, regardless of what principal active ingredient is responsible.

Defendant further argues that guanidine, which is an unstable chemical, decomposes into ammonia rapidly, and

since Moore's experiments left the guanidine on the hides for several days, the depilation really resulted from the ammonia in water, or ammonium hydroxide, not the guanidine. Defendant's witness Mr. Albert Shansky, a self-employed consulting chemist in the cosmetics field (Tr. 44), reported that in eight hours at room temperature, 50 percent of guanidine in a solution decomposes into ammonia (Tr. 240-41); however, he admitted that his data was based on tests performed with which he was unfamiliar. (Tr. 261)

Although ample proof was introduced that guanidine decomposes into ammonia and urea, *see, e.g.*, testimony of Dr. Cowsar, (Tr. 1168), we find no conflict in that fact and our conclusion that Moore anticipates defendant's product. Defendant's patent specifications call for the removal of the product from the hair after 45 minutes at the *maximum*; "[the] 45 minute time generally [is] about the greatest length of time that is commercially acceptable to end users." (Ex. 234, col. 6, lines 46-58; Ex. 235, col. 6, lines 49-61) Failure to remove the formula past that time period will result in disintegration of the hair (as we have already discussed). The fact that Moore kept the hides in solution for several days does not imply that most of the depilation did not occur within hours after the solution was first applied, before the guanidine began decomposing.

Defendant also invokes the "accidental prior use" doctrine arguing that Moore's failure to appreciate his production of guanidine hydroxide or its utility as a hair treatment means he did not anticipate defendant's product.

Judge Learned Hand explained this theory in *H.K. Regar & Sons, Inc. v. Scott & Williams, Inc.*, 63 F.2d 229, 231 (2d Cir.1933) as follows:

> It is quite true that an accidental use will not anticipate a process, if the earlier practiser was not aware of what he was doing, or how he did it. His work must give some assurance that the result can be reached another time, and of this there can be none

> unless the process is deliberate and the means understood. Nothing else can be called an art; it is merely an accident. . . . *But a new use of an old thing or an old process, quite unchanged, can under no circumstances be patentable*[.] . . . (emphaiss supplied)

*See In re Tuominen*, 671 F.2d 1359, 1361 (C.C.P.A.1982); *In re Pearson*, 494 F.2d 1399, 1403 (C.C.P.A.1974); *In re Hack*, 245 F.2d 246, 248 (C.C.P.A.1957). Nor may a patent issue when a property inherent in an old product is newly discovered. *See General Electric Co. v. Jewel Incandescent Lamp Co.*, 326 U.S. 242, 248-49, 66 S.Ct. 81, 83-84, 90 L.Ed. 43 (1945) ("It is not invention to perceive that the product which others had discovered had qualities they failed to detect"); *In re May*, 574 F.2d 1082, 1090 (C.C.P.A.1978); *In re Pearson, supra*, at 1403; *In re Thuau*, 135 F.2d 344, 347, 30 CCPA 979 (1943).

We find that guanidine hydroxide inhered in Moore's experiments as a natural consequence of the combination of guanidine carbonate and calcium hydroxide, and that defendant merely used an old process—disclosed by Moore—to achieve a similar result. Accordingly, we are convinced that Moore's article anticipated defendant's product, and consequently all of the claims asserted in both patents are unenforceable.

**2. Demuth**

Plaintiff also alleges that British Patent No. 636,181 ("Demuth") (Ex. 19) anticipated defendant's patents. Demuth discloses a composition for depilating human hair at a relatively low pH. The specification calls for a combination of a "lower mercapto [a derivative of hydrogen sulfide (Ex. 243 at 11)] carboxylic acid[9] such as thioglycollic acid, [ ] used as the active principle" with an equivalent amount of an alkaline base, preferably guanidine. (Tr. 849;

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[9] *See supra* n. 3.

Ex. 19 at 1, col. 1, lines 11-38) Three examples are listed and all specify the combination in water of guanidine with a thioglycolate mixture and other additives. Example one specifically sets forth guanidine thioglycolate.

Plaintiff's argument is based on its understanding, which we find persuasive, that "guanidine hydroxide" is really no more than the guanidine ion in water, for water is composed of two hydrogen atoms and one oxygen atom and when the guanidine atom is inserted in water it links up with hydrogen, producing guanidinium ions with a positive charge (GH+); the remaining hydrogen and oxygen atoms stay attached and produce an hydroxyl ion with a negative charge (OH–). Just as quickly, however, the ions break apart and reform into their original states. Thus, there is always guanidine free base, water, guanidinium ions and hyrodxyl ions in the guanidine hydroxide solution. (Tr. 1049-51) Indeed, plaintiff's expert Kass impressively testified that it is his "understanding that free base guanidine is also referred to as guanidine hydroxide." (Tr. 838) Likewise, Dr. Kenneth Dillon, a senior chemist in the Analytical Chemistry Division of the Applied Sciences Department of SRI and a witness for defendant (Tr. 584) testified that "if guanidine is present in water there will always be guanidine hydroxide present." (Tr. 643)

Since all that is needed to produce guanidine hydroxide is guanidine free base in water, plaintiff argues that the Demuth patent, which contains guanidine free base in water to produce a depilatory, anticipates defendant's claims.

Plaintiff's argument suggests that defendant's product would be anticipated by any formula in which guanidine is used together with water. We do not read defendant's patents so broadly. The '244 patent claims (Ex. 234) teach a process and composition for treating hair whereby guanidine hydroxide is formed by reacting a guanidine salt with a water soluble hydroxide for the purpose of relaxing hair.

These elements are not "disclosed within the four corners" of the Demuth patent, *see Warner-Jenkinson Co. v. Allied Chemical Corp.*, 477 F.Supp. 371, 383 (S.D.N.Y. 1979) (Weinfield, J.), *aff'd*, 633 F.2d 208 (2d Cir.1980) (quoting *General Tire & Rubber Co. v. Firestone Tire and Rubber Co.*, 349 F.Supp. 345, 356 (N.D. Ohio 1972), *aff'd in relevant part*, 489 F.2d 1105 (6th Cir.1980), which teaches the combination of guanidine with a thioglycolate mixture. Nor does the Demuth patent recite the same means of preparation as defendant's formula—a requirement of anticipation in chemical cases set forth by Judge Weinfeld. *Warner-Jenkinson, supra*, at 383.

Defendant's '540 claims are written in more general terms than the '244 claims and do not specify the means of preparation of the relaxation formula. However, it is well-established that claims must be read in light of their accompanying and detailed specifications to give the broadest possible interpretation to the claims. *See General Electric Co. v. United States*, 215 Cl.Ct. 636, 572 F.2d 745, 757 (1978); *In re Okuzawa*, 537 F.2d 545, 548 (C.C.P.A.1976); *Noma Lites Canada Ltd. v. Westinghouse Electric Corp.*, 399 F.Supp. 243, 254 (D.C.D.C.1975). The specifications of the '540 patent, like the specifications and claims of the '244, describe the combination of a guanidine salt with a water soluble hydroxide to produce the alkaline guanidine hydroxide, a combination not disclosed by Demuth. Accordingly, we find that the Demuth patent does not anticipate defendant's patents.

**3. "Gold Magic"**

Plaintiff next contends that another product manufactured by defendant called "Gold Magic" (Ex. I) anticipates defendant's patents. "Gold Magic" is a depilatory that was sold more than one year before defendant filed its patent applications for the product now in dispute. It contains 1.5 percent by weight guanidine carbonate, ten percent by weight calcium thioglycolate; and six percent by weight

calcium hydroxide. When these ingredients are mixed with water, guanidine thioglycolate and guanidine hydroxide are formed and from this mixture "Gold Magic" is canned.

Defendant contends that the calcium thioglycolate in "Gold Magic" is much more soluble than the calcium hydroxide; thus, the guanidine carbonate reacts with the calcium thioglycolate, producing guanidine thioglycolate, before reacting with the calcium hydroxide to produce guanidine hydroxide. According to defendant, the lack of guanidine hydroxide is evidenced by the pH of 12.2; defendant argues that if guanidine hydroxide were formed, the pH would be over 12.9. (Tr. 346-47; 1067-68) Since guanidine hydroxide is allegedly not the reaction product, defendant takes the position that "Gold Magic" does not anticipate defendant's patents.

We disagree and find that both "Gold Magic" and "Dark and Lovely" use the same ingredients to produce the same end product, guanidine hydroxide, except that "Gold Magic" employs an additional compound to produce an additional end product. Defendant's argument that guanidine hydroxide is not produced in the depilatory flies in the face of deposition statements by defendant's witnesses and the position taken by the defendant in a different case. Specifically, the inventor of "Dark and Lovely," Mr. de la Guardia, deposed that two guanidine compounds (guanidine thioglycolate and guanidine hydroxide) form when "Gold Magic" is mixed with water. (Tr. 375, 377-78) And in the case of *Carson v. Califano*, 594 F.2d 453 (5th Cir.1979) (Ex. 50), in which the instant defendant was the plaintiff, defendant wrote in its brief: "When water is added to the [Gold Magic] dry powder mixture . . . it activates [the] ingredients causing guanidine carbonate to displace some of the calcium in both calcium hydroxide and calcium thioglycolate to form two guanidine compounds. . . ." *Id.* at 16.

Defendant's argument that the 12.2 pH of "Gold Magic" is too low does not persuade us to the contrary. First, we note that defendant's '244 and '540 patent specifications provide that the pH value in the guanidine hydroxide must be above *11.8*, .4 less than the value in "Gold Magic." Second, there was testimony by Dr. Donald Cowsar, director of applied sciences research at SRI (Tr. 1033) and by Mr. de la Guardia, that the calcium hydroxide in "Gold Magic" may have served to some extent as a buffer, *i.e.*, a substance that maintains a solution at a constant pH even if more acid or alkaline is added. (Tr. 1068-69; 380-82) Consequently, the pH would not rise even though guanidine hydroxide is present in the solution. Finally, Mr. Kass, whose testimony we have adopted in full, gave it as his opinion that, "the measurement of the pH [in the L'Oreal formulas] [would not] have indicated anything . . . There is no way of interpreting [whether guanidine hydroxide is formed] from the pH determinations." (Tr. 955)

Our conclusion that "Gold Magic" anticipated defendant's patents finds further support in defendant's Summary of Relaxer ("Dark and Lovely") Research paper. (Ex. 49, at 2) The paper states:

> [W]e were trying to determine the reaction mechanism of our secret depilatory composition containing calcium thioglycolate, calcium hydroxide and guanidine carbonate The last ingredient was used as an accelerator. We were trying to determine if guanidine carbonate was reacting with calcium thioglycolate or with the calcium hydroxide. It occurred to us that perhaps the reaction product of guanidine carbonate and calcium hydroxide could be a hydroxide of guanidine and that it might be used to form a novel hair relaxer product. . . .
>
> Guanidine hydroxide was isolated and tests indicated that the isolated ingredient had excellent relaxing properties. . . .

In short, Mr. de la Guardia's thinking process when developing "Dark and Lovely" evidenced that defendant's own product, "Gold Magic," clearly and unequivocally disclosed, and therefore anticipated, the end product of guanidine hydroxide when calcium hydroxide was mixed with guanidine carbonate. *See In re Arkley et al., supra,* at 587.

**4. L'Oreal**

The final prior references that plaintiff contends anticipated defendant's patents are two patents issued to L'Oreal, U.S. Patent No. 3,908,672 (" '672 patent") (Ex. 16) and U.S. Patent No. 3,971,391 (" '391 patent") (Ex. 18). The L'Oreal patents disclose methods of transforming the tough disulphide bonds in hair into single sulfer bonds, freeing the excess sulfer atoms. This new structure with the single sulfer bonds comprises the amino acid lanthionine. The patents assert that lanthionized hair, lacking the disulphide bond of cystine which retains the natural configuration of hair, has great elasticity when wet.

Several ways of producing lanthionization are set forth in the L'Oreal patents. The basic formula advises applying to the hair an hydroxide base of an alkaline earth metal or alkali, such as calcium hydroxide or lithium hydroxide, in an aqueous solution (Ex. 16, cols. 1-4; Ex. 18, cols. 1-5).[10]

Another way to achieve the result of modifying the hair and also to reduce the time, temperature and/or pH of the L'Oreal treatment is by adding a "lanthionization activator." Such an activator is called an electrolyte; by itself, it has limited hydrolytic action on the disulphide bonds of cystine. (Ex. 16, col. 5; Ex. 18, col. 4) Furthermore, "[t]he electrolytes . . . can also be organic electrolytes such as guanidine carbonate." (Ex. 16, col. 5; Ex. 18, col. 4) The

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[10] The '672 patent further teaches that the hair should be stretched at this point in the treatment by mechanical means. (Ex. 16, cols. 1-4)

hydroxide is mixed with the electrolyte on wet hair. (Ex. 16, col. 6; Ex. 18, col. 5) Example 11 of the '672 patent specifically teaches the combination of 1.25 percent lithium oxide with 18 percent guanidine carbonate, producing a reaction product with a pH of 12.6 and a lanthionization degree of 21.5 percent. Example 17 of the '391 patent teaches a mixture of 2 percent lithium hydroxide with 18.5 percent guanidine carbonate resulting in a reaction product with a pH of 12.7 and a degree of lanthionization on wet hair of 44 percent. The specifications of both patents teach that "[o]f course, it is necessary to rinse carefully the hair after treatment." (Ex. 16, col. 3, Ex. 18, col. 2)

The limitations of the L'Oreal patents include an operating temperature of 25°C and upward, a time of 5 to 60 minutes in the '672 patent and 10 to 60 minutes in the '391, a pH range of 10.5 to 13, and a concentration of organic electrolytes (such as guanidine carbonate) of up to one mole per liter, *i.e.*, from zero to 18.5 percent. (Ex. 16, claim 14; Ex. 18, claim 9(b))

Our analysis of whether the L'Oreal patents anticipate defendant's patents begin with our observations that: (1) both formulas seek to modify the natural configuration of hair by transforming cystine; (2) L'Oreal suggests several methods for accomplishing this, one of which combines an hydroxide base with an electrolyte such as guanidine carbonate, while defendant's patents teach the mixture of an hydroxide with a water soluble salt such as a guanidine salt; (3) although two examples in the L'Oreal specifications specifically combine lithium hydroxide with guanidine carbonate the specifications further provide that calcium hydroxide may be substituted as an organic electrolyte; likewise, although 11 examines in defendant's patent specifications call for the combination of guanidine carbonate and calcium hydroxide, the specifications also provide that lithium hydroxide may be substituted for calcium hydroxide; and (4) the time, temperature, pH and concentration ranges of both formulas largely overlap: The L'Oreal for-

mulas are applied for 5 (or 10) to 60 minutes, the "Dark and Lovely" formula for 5 to 45 minutes; the L'Oreal formulas operate at 25°C (77°F) and upward, the "Dark and Lovely" formula at 35°F to 140°F; the L'Oreal formulas have a pH range of 10.5 to 13, the pH of "Dark and Lovely" is above 11.8, preferably 12.5 to 13.5; and the concentration of guanidine carbonate put into the initial L'Oreal reaction ranges from zero to 18.5 percent; its concentration range in "Dark and Lovely" is 1.2 to 40 percent, most preferably 5 to 8 percent.

Defendant attempts to distinguish the two products by concentrating on examples 11 and 17 of the L'Oreal patents, which specify the combination of lithium hydroxide with guanidine carbonate. Defendant justifies its focus on these examples by arguing that a reading of the specifications of L'Oreal would suggest up to 1,200 different combinations of ingredients; thus, for the purposes of anticipation, one who is skilled in the art would concentrate on the examples only.

Defendant concludes that the reaction between lithium hydroxide and guanidine carbonate produces very little, if any, guanidine hydroxide. Dr. Dillon testified that lithium hydroxide is not substantially insoluble, unlike calcium hydroxide, so that when placed in water with guanidine carbonate, hardly any of the soluble lithium combines with guanidine to form a precipitate. (Tr. 646-47; 748) Consequently, the water is filled with lithium, carbonate, hydroxide and guanidinium ions as well as free guanidine. (Tr. 753-54) Defendant postulates that the additional ions, which it calls "spectator ions," disrupt the formation of guanidine hydroxide. As Dr. Cowsar analogized:

> If we take a solution of guanidine hydroxide and we add something to that solution, and for the sake of simplicity I am going to say we sprinkled some table salt into that solution, we put in sodium chloride.

> Table salt is a salt because when you put it in water it dissociates into sodium ions and chloride ions.
>
> . . . . .
>
> [T]his is no longer guanidine hydroxide when we add table salt to it. Depending upon the concentration, and I am assuming that I sprinkled enough in, . . . this is now a solution of sodium hydroxide because it has sodium ions and hydroxide ions, the same way as if I had put them in as sodium hydroxide and it has guanidine ions and chloride ions as though I had added the guanidine in as guanidine chloride instead of free guanidine.
>
> . . . [I]f the concentration of sodium ions is equal to the concentration of hydroxide ions or greater . . . this solution no longer behaves as what I call guanidine hydroxide in the way it relaxes hair or the way it does anything with these ions present.
>
> . . . [T]hese so-called spectator ions disrupt this equilibrium and cause different results to be obtained with these solutions.

(Tr. 1054-55)

Defendant draws further support for its "spectator ions" theory from results obtained in experiments performed by Mr. Kass, who sought to determine the amount of lithium carbonate (and corresponding amount of guanidine hydroxide) formed when amounts of lithium hydroxide ranging from one half to four percent were added to a water solution of 18 percent guanidine carbonate, the uppermost limit of guanidine carbonate in L'Oreal's patents. Each experiment was tested at 25°C (77°F) and 50°C (122°F). The experiments demonstrated that where one gram of lithium hydroxide was used at 25°C, no lithium carbonate (and thus no guanidine hydroxide) was recovered; at 50°C, .015 percent was recovered. When two grams were mixed, .5 percent of lithium carbonate precipitated. Since the

L'Oreal patents teach the use of 1.25 grams, defendant argues that it may be assumed that hardly any lithium carbonate or guanidine hydroxide is recovered. (Tr. 1082-83; Ex. WW)

Dr. Dillon performed the exact same experiments and measured the pH of each of the resultant solutions. His results showed a pH range of 12.7 to 13.21 (the less lithium hydroxide added, the lower the pH value) (Ex. HH). Dr. Cowsar testified that if guanidine hydroxide had been formed, the pH would have ranged from 13 to 13.66. (Tr. 1089; Ex. VV) He hypothesized that no guanidine hydroxide at all forms when guanidine carbonate and lithium hydroxide are combined, (Tr. 1078-79) but at most, a solution with these chemicals would contain a mixture of both guanidine hydroxide and lithium hydroxide. (Tr. 1093) In contrast, Dr. Marlene Katz, head of the bioformulations section of SRI (Ex. 246I, Katz, at 5), deposed that the L'Oreal formulas would produce guanidine hydroxide. (*Id.* at 106)

Dr. Cowsar also noted that since guanidine hydroxide decomposes into ammonia, that odor can always be detected excluding from solutions in which the guanidine hydroxide sits for approximately 30 minutes. However, Mr. Kass observed no smell of ammonia in his experiments after 30 minutes—supporting evidence that there was no guanidine hydroxide in his experiments modeled after the L'Oreal examples. (Tr. 1094-95)

Mr. Kass interpreted his experiments differently. He found that a white precipitate (lithium carbonate) formed "almost instantly;" and "that from the amount of lithium carbonate recovered I can only conclude that quite a high level of guanidine hydroxide was formed." (Tr. 842-43) Dr. Dillon agreed that lithium carbonate precipitated, the presence of which insured that guanidine hydroxide had formed (Tr. 638; 640)—perhaps even enough to relax hair. (Tr. 757) Furthermore, Jean-Claude Arnaud, a chemical engi-

neer at L'Oreal (Ex. 246I, Arnaud, at 5), deposed that he would expect guanidine to be produced in examples 11 and 17 of the L'Oreal patents, though he never tested the formula to learn if it was actually produced. (*Id.* at 16) According to Dr. Meyers, even if only one percent guanidine hydroxide was formed, there would be an observable result if the user had minimally curly hair. (Ex. 246I, Meyers, at 79)

We find that the L'Oreal patents did anticipate defendant's patents. We reject defendant's argument that the L'Oreal patents suggest 1,200 different chemical combinations, therefore one skilled in the art would only refer to the specific examples. Examples 11 and 17 provide for the combination of lithium hydroxide and guanidine carbonate; the specifications point out that calcium hydroxide can be substituted for lithium hydroxide. It is our opinion that one skilled in the art would readily recognize the interchangeability of lithium and calcium and thus that calcium hydroxide may be combined with guanidine carbonate under conditions very similar to those set forth in defendant's patents. Moreover, defendant's patent specifications provide that lithium hydroxide may be substituted for calcium hydroxide. We are hard pressed to understand why defendant's specifications would suggest a possible substitute that defendant argues does not produce enough guanidine hydroxide to relax hair—the very purpose of "Dark and Lovely."

Defendant also contends that guanidine carbonate is used as an activator in the L'Oreal patents (Ex. 246I, Arnaud, at 5) whereas it is the principal active ingredient in "Dark and Lovely." We reject this argument in light of our opinion expressed *supra* that the principal active ingredient of "Dark and Lovely" is uncertain. What is clear to us, however, is that both formulas use the same ingredients to accomplish substantially the same result. In addition, we are struck by defendant's own label of ingredients on the "Dark and Lovely" box (Ex. J): under the words "Dark

and Lovely Color Mixer *Activator*" (emphasis ours) appear the words "guanidine carbonate."

Finally, we disagree with defendant that the accidental u[se] doctrine bars our finding of anticipation. Relying on the deposition testimony of Arnaud, defendant argues that the L'Oreal inventors never intended to produce and were not aware that they had produced, guanidine hydroxide. (Ex. 246I, Arnaud, at 17)

Contrary to defendant's argument, we find that the anticipation of the L'Oreal patents clearly fits into Judge Learned Hand's maxim: "[A] new use of an old thing or an old process, quite unchanged, can under no circumstances be patentable." *H.K. Regar & Sons, Inc., supra*, at 231. Thus, we disagree with defendant's assertion that the accidental use concept bars the application of the doctrine of anticipation by the L'Oreal patents.

In accordance with the foregoing, we are constrained to, and do, find that defendant violated 35 U.S.C. § 102 since its '244 and '540 patents were anticipated by the Moore article, defendant's "Gold Magic" product, and the L'Oreal patents '391 and '672.

**C. Obviousness**

Plaintiff's next legal argument is that defendant's patents are invalid and unenforceable under the doctrine of obviousness which is set forth at 35 U.S.C. § 103;

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title [anticipation], if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Like anticipation, the obviousness concept serves the public interest by preventing the granting of a monopoly

over information already within the public knowledge. *See Soundscriber Corp. v. United States*, 175 Ct.Cl. 644, 360 F.2d 954, 960 (1966).

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966), the Supreme Court fashioned a three part test to determine whether an invention is obvious:

> Under section 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevance. (citations omitted)

We now undertake to examine each of the factors set forth in *Graham* in connection with the instant case. The first factor is the determination of the scope and content of the prior art, including prior patents, publications describing the prior art and testimony of persons who know of the prior art. *Dielectric Laboratories, Inc. v. American Technical Ceramics*, 545 F.Supp. 292, 296 (E.D.N.Y.1982). Of course, the prior art must be relevant to the invention sought to be patented. Relevancy in the context of obviousness is defined by the nature of the problem faced by the inventor. *Republic Industries, Inc. v. Schlage Lock Co.*, 592 F.2d 963, 975 (7th Cir.1979). When the prior art is within the field of the inventor, it is clearly relevant and he is presumed to know of it. However, when the prior art is outside his field, only those arts reasonably pertinent to the specific problem which he confronts are

presumed to be within the knowledge of the inventor. *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A.1979); *see Jungerson v. Ostby & Barton Co.*, 335 U.S. 560, 567, 69 S.Ct. 269, 272, 93 L.Ed. 235 (1949); *Union Carbide Corp. v. American Can Co.*, 724 F.2d 1567, 1570 (Fed.Cir.1984); *In re Mlot-Fijalkowski*, 676 F.2d 666, 670 (C.C.P.A.1982); *In re Shapleigh*, 248 F.2d 96, 102, 45 CCPA 705 (1957).

The prior art that plaintiff argues anticipates and renders obvious defendant's patents include references dealing with removal of hair from dead animal skins, human depilatories, and hair treatment formulas.

Defendant argues that animal depilatories are not relevant art that may be considered in determining the obviousness of its invention. We have already discussed at length the significance of the animal dehairing art on hair relaxing. Based on all the evidence adduced at trial on this point, we find the two arts analogous.[11] We are also convinced (the parties so stipulated) that the art of human depilation is analogous to that of human hair relaxation. We regard the Moore article, the Demuth patent, defendant's "Gold Magic" product and the L'Oreal patents as prior references.

We go further, three articles, two written in 1926, discuss the chemical guanidine and are relevantly instructive.

The first published article was written by Mr. James Bell and entitled "The Hydrolysis of Guanidine." (Ex. 120) In discussing the formation of urea when guanidine is hydrolyzed, the author discloses a means of preparing free guanidine solution "by the precipitation of guanidine car-

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[11] At trial, defendant objected without argument to the introduction into evidence of Ex. 87, a patent concerning the process of unhairing hides or skins. (Tr. 890) We reserved decision at the time and now find, based on our conclusion that the dehairing art is analogous art, that this exhibit is clearly relevant and therefore admissible. *See* Fed.R.Evid. 401, 402, 403.

bonate solution with one equivalent of barium hydroxide solution and filtering off the barium carbonate." (*Id.* at 1216) He further observes, *inter alia*: (1) that the solution with the free base guanidine is strongly alkaline, *id.*, and (2) that when an aqueous solution of guanidine alone stands at room temperature, it will slowly decompose into ammonia, producing urea: after 5 days, 3.25 percent of the guanidine will decompose; after 10 days, 6.1 percent, and after 20 days, 11.3 percent. (*Id.* at 1214, 1217)

The second article was published by American Cyanamid and entitled "The Chemistry of Guanidine." (Ex. 25) The article defines guanidine as "a crystalline, monoacidic base of a strength nearly equivalent to that of sodium hydroxide," and asserts that various guanidine salts (listing guanidine carbonate, nitrate and hydrochloride) are available in commercial quantities. (*Id.* at 3) The article discloses the formation of free guanidine by reacting guanidine salts "with a reagent which will precipitate the salt anion." Specifically, it states that "a typical procedure used in our laboratory" is to mix 100 grams of guanidine carbonate in water and by adding 43 grams of calcium hydroxide in water (*id.* at 13) 10 percent free guanidine will be formed. (*Id.*) Further, the article discusses the decomposition of guanidine into urea, noting that more than 90 percent of guanidine in solution at room temperature remains intact after four days. (*Id.* at 15) Significantly, this 1926 article also discloses the use of guanidine hydrocloride (one of the guanidine salts) to disperse keratin protein and the use of guanidine bisulfate to relax keratin fibers in order to permanently wave hair. (*Id.* at 31)

A third relevant publication was an article written in 1963 by defendant's expert Shansky. (Ex. 28) The article which appeared in 78 American Perfumer & Cosmetics 32 was entitled, "A Synthesis and Evaluation of Guanidine Thioglycolate for Cold Permanent Waving." Shansky advised the freeing of guanidine from its salts by combining

guanidine carbonate with calcium hydroxide in water and filtering the precipitate formed (*Id.* at 32)

The *Graham* test also requires that we ascertain the level of ordinary skill in the art. The parties stipulate, and we adopt as our finding, that a chemist with a graduate or undergraduate degree and experience in the field of cosmetics would satisfy this requisite. (Stipulated Fact 38) The parties also stipulate that plaintiff's expert Kass and defendant's expert Shansky have at least ordinary skill in the art with which we are concerned. (Stipulated Facts 39 and 40) This stipulation, however, we qualify with the following findings of fact.

As we have already stated, we were extraordinarily impressed with witness Kass and found his testimony, his demeanor on the witness stand, etc. made him a most persuasive and credible witness. We note that in addition to having his own firm in the cosmetic and personal care industry (Tr. 793), Mr. Kass belongs to four chemical/medical societies (Tr. 794), has published 35 papers regarding cosmetic chemistry (Tr. 797), obtained four or five cosmetic chemical patents (Tr. 797), is a member of the faculty of University of Illinois School of Medicine (Tr. 798), has worked at various jobs in the cosmetic and hair care field, and lectured in hospitals and medical schools on cosmetic safety and related dermatological problems. (Tr. 798-99)

We were considerably less impressed with the testimony and demeanor, etc. of witness Shansky. Although he has published more than 50 articles dealing with hair and cosmetics, his credibility was scorched in other contexts, *e.g.*, writing on his resume at one time that he had received the degree of PhD from Illinois Institute of Technology when in fact he never did (Tr. 97), and his failure to prevent a number of publishers from falsely following his name with the letters "PhD." (Tr. 96)

The third factor in the *Graham* opinion requires us to determine the distinctions between the prior art and the

claims at issue from the point of view of one with ordinary skill in the art.[12]

The key differences between Moore's experiments and "Dark and Lovely" are the fact that Moore's solutions were applied to animal hides, which we have already determined to be analogous to human hair treatment, and the amount of time the guanidine hydroxide formed is left on the hide (or hair); in Moore, it was left on for several days whereas in "Dark and Lovely," it may be left for no longer than 45 minutes.

As we have discussed in detail in the section concerning anticipation, we find that one with ordinary skill in the art would know that if the formula is left on for a short period of time, the cystine bonds in keratin would break; if left on longer the hair would disintegrate altogether, causing depilation. Thus, it would be obvious to one with ordinary skill in the art that the combination of guanidine carbonate and calcium hydroxide suggested by Moore would also result in cystine breakage.

We also note that unlike the doctrine of anticipation, an invention may be unpatentable under obviousness if the combined teachings of *several* prior references render it obvious. For example, one prior reference might contain two out of five elements of the inventor's new idea, a second might boast of another two elements, while a third reference has the part remaining. If each prior reference were viewed separately, the new idea would not be obvious to the inventor; however, seen collectively, the invention would be obvious and therefore unpatentable. *See CTS Corp. v. Electro Materials Corp. of America*, 469 F.Supp. 801, 820 (S.D.N.Y.1979) ("The question of obviousness in-

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[12] We note that Mr. Shansky and the inventor of "Dark and Lovely," Mr. de la Guardia, agree that there is nothing new about the use of a two-component system, *i.e.*, holding each ingredient in a separate container, before mixing them in water. (Tr. 191-93; 503-05)

volves 'not only what the references expressly teach, but what they would collectively suggest to one of ordinary skill in the art.' ") (quoting *In re Simon*, 461 F.2d 1387, 1390, 59 CCPA 1140 (1972)).

A review of the teachings of the other prior references together with the Moore article solidifies our conclusion with respect to the obviousness of defendant's patents. We find the following to be of particular significance: (1) Guanidine was used as an ingredient (and mixed with water, formed some guanidine hydroxide) for human depilation, an art that defendant concedes is analogous (Stipulated Fact 35) to the Demuth patents and in defendant's "Gold Magic" product; (2) guanidine carbonate is specifically mixed with calcium hydroxide and a third ingredient, calcium thioglycolate, in water in defendant's "Gold Magic" product, resulting in the formation of guanidine hydroxide (and guanidine thioglycolate) (Tr. 375; 377-78; Ex. 50 at 16) in order to depilate human hair; (3) the L'Oreal patents, which teach formulas (some using guanidine salts and hydroxides) to modify the characteristics of human hair, contain substantially the same time restrictions for the application of the formulas as "Dark and Lovely," unlike the Moore article. Indeed, the chemical concentrations, pH and temperature limitations specified in the L'Oreal patents largely overlap with the same information in defendant's patents; (4) it has been known for almost 60 years, as demonstrated by the Bell and American Cyanamid publications, that free guanidine in water, which even defendant's experts concede forms guanidine hydroxide, (Tr. 643) may be formed by mixing a guanidine salt with a hydroxide; this is further elaborated upon in witness Shansky's article which specifies the combination of guanidine carbonate and calcium or barium hydroxide; and (5) the American Cyanamide article, published, we repeat, in 1926, teaches that guanidine salts may be employed to relax keratin proteins in order to wave hair. (Ex. 25 at 31)

In light of the foregoing, we have no hesitancy in concluding that defendant's patents were obvious to one with ordinary skill in the art. Witness Kass drew the same conclusion. It was his opinion that a cosmetic chemist in 1976 (the year "Dark and Lovely" was "discovered") aware of the Moore, Shansky and Bell articles would have found obvious the subject matter in defendant's patent claims. (Tr. 831)

Even Mr. de la Guardia, defendant's expert and the inventor of "Dark and Lovely," testified that guanidine hydroxide was known in the prior art (Tr. 472) as was the method by which defendant makes guanidine hydroxide, *i.e.*, the mixture of calcium hydroxide and guanidine carbonate. (Tr. 472-73) However, it was his opinion that what was not known was the novelty of using guanidine hydroxide to relax hair. (Tr. 473) On the contrary, we believe that the L'Oreal patents clearly demonstrated the use of guanidine hydroxide to modify characteristics of hair. Furthermore, the use of guanidine hydroxide to depilate animal and human hair, arts we have determined to be analogous to hair relaxation, fortifies our decision that the use of guanidine hydroxide to relax hair was obvious to a cosmetic chemist with ordinary skill.

Defendant attempts to defeat the obviousness claim by maintaining that if its formula and use were obvious, plaintiff, a competitor who also suffered financially from the FTC's imperative requirement to label sodium hydroxide products as containing lye, would have experimented with guanidine formulas. To support its argument, defendant cites the deposition testimony of several of plaintiff's employees who worked in the laboratories. The depositions establish that after the FTC's directive, discussions ensued among employees at Revlon to find a substitute for sodium hydroxide; quatenary, amonium hydroxide and other metal hydroxides such as lithium or calcium hydroxide were suggested. (Ex. MM at 31-32) It appears that plaintiff did not devote much resources to-

wards this goal; indeed, we note that plaintiff sold a large portion of its sodium hydroxide formula to professional salons, and thus the customer did not learn the ingredients contained in the solution applied by the beauticians to the hair.

However, the deposition testimony of plaintiff's employees indicates that they examined competing products including "Dark and Lovely" (Ex. 246II, Klein at 17; Ex. 246II, Bottner, at 15), and after defendant's product was introduced on the market, plaintiff began selling a guanidine relaxer (Ex. MM at 33-34). In short, our review of the proof leads us to agree with defendant that plaintiff did not develop a guanidine product until after "Dark and Lovely" was marketed. Nevertheless, we fail to see how plaintiff's shortcomings in that respect require a conclusion of nonobviousness of defendant's patents. A determination of obviousness is based on whether "the inventor . . . working in his shop with the prior art references—which he is presumed to know—hanging on the walls around him" would consider the discovery obvious. *In re Winslow*, 365 F.2d 1017, 1020, 53 CCPA 1574 (1966). Such a determination is not based on whether the competitor simultaneously created the same product.

Defendant further contends that a cosmetic chemist in 1976 would have believed that guanidine formulas "taught away" from their use. Therefore, such formulas would not have been obvious for hair treatment. *See Raytheon Co. v. Roper Corp.*, 724 F.22d 951, 960 (Fed.Cir.1983); *In re Marshall*, 578 F.2d 301, 304 (C.C.P.A.1978); *Burndy Corp. v. Kearney-National, Inc.*, 466 F.Supp. 80, 90 (S.D.N.Y.1979). Defendant obtains support for this argument from the deposition testimony of plaintiff's laboratory employees to the effect that their tests of "Dark and Lovely" showed the formula to be unstable, and that Gustave Klein, vice-president and director of New Product Development at Revlon, therefore recommended that

plaintiff not market a comparable product. (Ex. 246II, Klein, at 16)

The decomposition of guanidine into its byproducts of urea and ammonia is comparatively much more rapid than stabler compounds like sodium hydroxide. Nevertheless, other cosmetic products such as defendant's "Gold Magic" had been successfully using guanidine for some time before "Dark and Lovely." The mere fact that one of plaintiff's employees believed the "Dark and Lovely" was inferior to plaintiff's sodium hydroxide formulas with respect to the former's stability does not necessitate a conclusion that guanidine formulas "taught away" from their use, particularly in light of other prior references which used guanidine with success.

Our response is the same to defendant's further arguments that guanidine had previously been thought to be toxic and that guanidine carbonate had not effectively accelerated relaxation when defendant tested it with sulfites in its early 1970's attempt to develop a neutral pH sulfite relaxer. If these beliefs about guanidine were true, we cannot understand why defendant used this chemical in its "Gold Magic" product, or why others such as L'Oreal used it to modify hair. If anything, we find that these products taught the use of guanidine; certainly they did not "teach away" from it. We therefore conclude that defendant's patents were obvious within the meaning of 35 U.S.C. § 103.

Our analysis of the question of obviousness, however, does not end here. As the Supreme Court made clear in *Graham*, secondary considerations such as commercial success, long felt but unsolved needs, failure of others, etc. must also be examined to shed light on the circumstances surrounding the invention's origin. 383 U.S. 1, 17-18, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966). If a nexus is established between the claims of the invention and these secondary considerations, they may be relevant in a de-

termination of obviousness. *See Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1539 (Fed.Cir.1983); *Solder Removal Co. v. U.S. International Trade Commission*, 582 F.2d 628, 637, 65 CCPA 120 (1978). Thus, where the success of an invention is due to advertising, good business sense, the prior art, etc. rather than the advantages inherent in the discovery, it is irrelevant to a determination of obviousness. *See In re Sneed*, 710 F.2d 1544, 1551 (Fed.Cir.1983); *Aktiebolaget Karlstads Mekaniska Werkstad v. U.S. International Trade Commission*, 705 F.2d 1565, 1577 (Fed.Cir.1983); *Solder Removal Co., supra*, at 637; *In re Thompson*, 545 F.2d 1290, 1295 (C.C.P.A.1976); *Douglas v. United States*, 206 Ct.Cl. 96, 510 F.2d 364, 370 (1975); *In re Felton*, 484 F.2d 495, 501 (C.C.P.A.1973); *Arriflex Corp. v. Aaton Cameras, Inc.*, 220 U.S.P.Q. 424, 428 (S.D.N.Y.), *aff'd*, (Fed.Cir.1983). Indeed, where the invention is extremely advantageous, courts have given the secondary considerations a lot of weight. *See Ling-Temco-Vought, Inc. v. Kollsman Instrument Corp.*, 372 F.2d 263, 269 (2d Cir.1967) (where invention was successful device of substantial importance to our national security, secondary considerations were more appropriate for the court's consideration than if the invention had been minor and non-technical).

*Commercial Success*

Defendant puts great emphasis on the commercial success of "Dark and Lovely." Plaintiff counters that the commercial success of defendant's product is due to its advertising campaign, not to product advantage.

Our opinion accords with that advanced by plaintiff. First, we find that defendant spent large sums on its advertising campaign, and that the sales of "Dark and Lovely" increased with the amount of money spent on advertising. (Ex. K; Ex. 246I, Hall, at 26-28).

Second, we note that defendant attained highly successful results by appropriately targeting the promotion of

"Dark and Lovely" extensively to the black female population (Tr. 442) through the use of the name "Dark and Lovely" (Tr 441; Ex. 246I, Hall, at 70); places where the product was advertised (*id.* at 32-33); and the impressive picture of a black woman posted on the product's box. (Tr. 442) As Kenneth Hall, vice-president of marketing for Carson Products deposed (and Mr. de la Guardia agreed):

> Q. Would the product be nearly as successful if you had the picture of a white woman on the package?
>
> A. It wouldn't have sold worth a damn.

(Tr. 443; Ex. 246I, Hall, at 72)

Furthermore, the label affixed to the box, "contains no lye," significantly impressed the consumer and took advantage of the extremely adverse reaction to products labeled as containing lye. (Ex. 246II, Bottner, at 20-21; Ex. 107 at par. 14).

Further evidence that the commercial success of "Dark and Lovely" was attributed more to defendant's advertising campaign and less to the actual advantages of the product is the lack of success with which "Dark and Lovely" met in the professional hair salon market. Professionals are more concerned with effectiveness than with advertisement; their customers do not see the labels and pictures on the products sold to them. (Ex. 246II, Bottner, at 20-21; Ex. 107 at ¶ 4)

Defendant unpersuasively argues that the success of its product is evidenced by the license agreement with Johnson Products. The proof clearly and convincingly demonstrates that Johnson Products marketed a formula similar to "Dark and Lovely" called "Gentle Treatment" after defendant's product was introduced (Tr. 446-47); it preferred "to enter into a reasonable license agreement rather than engage in a possible expensive and protracted liti-

gation." (Ex. 207 at 1; Tr. 445)[12] Indeed, defendant also unsuccessfully attempted to enter into license agreements with Revlon and with Posner Laboratories for their guanidine hydroxide relaxers. Although defendant threatened to sue both companies for infringement if they would not accept the license offers, neither signed a contract (Tr. 353-54) and plaintiff instituted this action.

Moreover, defendant did not score on another type of success: the proof adduced at trial demonstrated that defendant's product was no more effective or safe than lye formulas (Tr. 406-07), and the frequency of consumer complaints was higher for guanidine hydroxide formulas than for sodium hydroxide relaxers. (Tr. 864-65) As witness Kass testified, since both guanidine hydroxide and sodium hydroxide formulas are very alkaline with pH values in excess of 13, it is reasonable to expect that both would cause the same amount of irritation. (Tr. 866) In short, we do not believe that the commercial success of "Dark and Lovely" destroys our finding of obviousness.

*Long Felt Need*

Another secondary consideration which may be relevant to a determination of obviousness is a long felt need for a particular invention. *See Graham, supra*, 383 U.S. at 17-18, 86 S.Ct. at 694. Even if arguably there was a need for a no-lye relaxer, it seems to us that "Dark and Lovely" was not the answer. Although defendant's product does not literally contain lye, its alkalinity level of 13.65 (Ex. 241 at 277) is almost equal to that of sodium hydroxide relaxers, the pH of which approach 14. Indeed, as we have already mentioned, evidence was introduced to the effect that "Dark and Lovely" was more damaging to hair than sodium hydroxide products. (Tr. 406-07; 864-66) Thus, we find that "Dark and Lovely" did not meet any long felt need.

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[12] *See supra* n. 5.

In sum, we find no nexus between defendant's patent claims and any secondary considerations; we remain of the opinion that defendant's patents were obvious and therefore invalid and unenforceable under 35 U.S.C. § 103.

**D. Definiteness of Claims**

35 U.S.C. § 112 provides, *inter alia*:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.
>
> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
>
> . . . . .

In short, full disclosure of the scope and limits of an invention are required so that one with ordinary skill in the art could replicate it. *See Standard Oil Co. v. Montedison*, 664 F.2d 356, 363-64 (3d Cir. 1981), *cert. denied*, 456 U.S. 915, 102 S.Ct. 1769, 72 L.Ed.2d 174 (1982). Although the claims of the patent must particularize the invention, they may be construed broadly in light of the specifications; if one with ordinary skill in the art could make and use the invention by following the specifications, the patent will not be invalidated by reason of indefiniteness. *In re Moore*, 439 F.2d 1232, 1235-36, 58 CCPA 1042 (1971); *see Caterpillar Tractor Co. v. Berco S.p.A.*, 714 F.2d 1110, 1116 (Fed.Cir.1983); *General Electric Co. v. United States*, 215 Ct.Cl. 636, 572 F.2d 745, 755, 778 (1978). Furthermore, even when operating details are left out of a patent, if one skilled in the art could supply the omissions, the patent

is not invalid. *Ex Parte Bull et al.*, 117 U.S.P.Q. 302, 305 (Patent Office Board of Appeals 1957).

Plaintiff argues that defendant's patent claims are indefinite on several grounds. First, plaintiff asserts that the claims are ambiguous, do not state the operating parameters of the invention, and are so broad that following them would result in disintegration of the hair altogether. Although we agree that the claims are written in vague terms, we believe that the specifications elaborating upon the claims more than amply particularize the invention. The time, temperature, pH and chemical concentration limits of the invention are set forth in the specifications sufficiently for one skilled in the art to follow.

Plaintiff's next assertion is based on its theory, with which we have already expressed agreement, that guanidine hydroxide is not a compound but only guanidine free base, guanidinium ions and hydroxyl ions in water. (Tr. 1050) Therefore, plaintiff contends, the description in the patents of guanidine hydroxide as a "compound" violates 35 U.S.C. § 112.

A compound exists where two or more elements unite in definite proportions by weight. For example, the fact that water always contains two hydrogen atoms and one oxygen atom in combination makes it a compound. Webster's New International Dictionary (unabridged) 548 (2d ed. 1950). It is true that the same cannot be said about guanidine hydroxide, which contains three separate elements all at one time: the free base guanidine, guanidinium ions (one guanidine and one hydrogen atom with a positive charge) and hydroxyl ions (one hydrogen and one oxygen atom with a negative charge).

As a legal matter, if a term used in patent is a misnomer, the patent is invalid. *See In re Anderson*, 471 F.2d 1237 (C.C.P.A.1973). The underlying reason is that the use of an incorrect word with a different meaning could be misleading to one who is skilled in the art. *Id.* at 1244.

It is our opinion that defendant's use of the term "compound" does not require a conclusion of indefiniteness. We note that neither the claims nor specifications of defendant's patents contain the word "compound;" it is only inserted in the file wrapper, which summarizes the history of the patents in the PTO. We find that one with ordinary skill in the art, who would know the constituents of guanidine hydroxide, could follow the patents to create defendant's product without being misled by the word "compound."

Plaintiff's third argument is that the meaning of "principal active ingredient" in defendant's patents is indefinite since each of the expert witnesses had a different definition for that expression. However, we find that defendant's patents claim the combination of a guanidine salt with an hydroxide to produce an effective hair relaxer in terms sufficiently precise to enable one skilled in the art to make and use the products. Defendant's mere reference to guanidine hydroxide as the principal active ingredient—or, as we have already discussed, as *apparently* the principal active ingredient (Ex. 234, col. 5, lines 9-10; Ex. 235, col. 5, lines 11-12), does not make the patent claims indefinite.

Accordingly, we reject plaintiff's argument that defendant's patent claims violate 35 U.S.C. § 112.

**E. Patent Misuse**

Before discussing this issue, we must address an evidentiary matter relevant to the patent misuse question. Defendant objects to the admissibility of plaintiff's exhibits 71, 71-A, 73, 73-A, 77, 112 and 112-A, all of which concern defendant's three hair relaxing patents not challenged in this litigation.

We find that these exhibits are relevant only insofar as the constitute the basis of plaintiff's claim of patent misuse by defendant, an issue which both parties stipulated was

being tried. (Stipulated Fact 48) For this limited purpose, we admit these exhibits into evidence.

Plaintiff contends that defendant misused its '224 patent by using it as a basis for improperly obtaining an effective filing date for three other patents. In other words, plaintiff claims that on February 8 and 11, 1980 defendant filed three continuation-in-part applications, *i.e.*, additional patent applications filed during the pendency of an earlier-filed application by the same inventor disclosing at least partially the same (plus added) subject matter and referring to the earlier application. 35 U.S.C. § 120. (Tr. 1016-17) One of the new applications, U.S. Patent No. 4,324,263 ("'263") (Ex. 112) contained new subject matter and claimed the benefit of the '244 application filed on June 9, 1977 which was still pending. Allegedly, defendant was in that way able to patent new forms of guanidine salts not covered in the original application which other companies had begun using after defendant's initial application was filed; had defendant not employed the continuation-in-part method, its three new patents would have been invalid due to the prior art that intervened between the two filing dates.

We find that plaintiff has misconstrued the patent misuse theory, which is a defense to an infringement action and may be asserted when a patentee so exploits his patent that anti-trust laws are violated or the patent is extended well beyond its lawful scope. Donald S. Chisum, 4 Patents § 19.04. Plaintiff's construction of the doctrine sets forth a claim in fraud, not in patent misuse. In each "patent misuse" cases cited by plaintiff, a previously acquired patent was later used to procure royalties, licensing agreements or other similar profit-motivated goals. For example, in *Morton Salt Co. v. Suppiger*, 314 U.S. 488, 62 S.Ct. 402, 86 L.Ed. 363 (1942), plaintiff already had a patent on a salt depositing machine and leased its machines only on the condition that plaintiff's unpatented salt tablets be used. Defendant herein had not even obtained its patent

when its additional applications were filed. We also fail to see how the other cases plaintiff cites in support of its position may be analogized to the one before us.[14]

Even if we regard plaintiff's patent misuse argument as another way of expressing alleged inequitable conduct on the part of defendant in filing the continuation-in-part application, we take heed of the Court's holding in *San Marino Elec. Corp. v. George G. Meyer Manufacturing Co.*, 155 U.S.P.Q. 617, 626 (C.D.Cal.1967), *aff'd*, 422 F.2d 1285 (9th Cir.1970) that the filing of a continuation application does not in itself constitute unclean hands. The Court stated: "[D]efendants were exercising their legal rights in filing a continuation application, even if the purpose of the application may have been in part to broaden the patent." *Id.* at 626. We find this true here.

Plaintiff further claims that defendant misused its patent by filing two other continuation applications, U.S. Patent Nos. 4,314,572 ("'572") (Ex. 71) and 4,303,085 ("'085") (Ex. 73), which listed both de la Guardia and Cowsar as joint inventors when the '244 patent listed only de la Guardia. 35 U.S.C. § 120 provides that the later filed application must have the same inventive entity.

We find the patent misuse doctrine inapplicable to this claim for the same reasons already set forth. Moreover,

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[14] *Precision Instrument Manufacturing Co. v. Automotive Maintenance Machinery Co.*, 324 U.S. 806, 65 S.Ct. 993, 89 L.Ed. 1381 (1944); *Kearney & Trecker Corp. v. Cincinnati Milacron, Inc.*, 562 F.2d 365 (6th Cir.1977); *Rixon, Inc. v. Racal-Milgo, Inc.*, 551 F.Supp. 163 (D.Del.1982); *Transitron Electronic Corp. v. Hughes Aircraft Co.*, 487 F.Supp. 885 (D.Mass.1980), *aff'd*, 649 F.2d 871 (1st Cir.1981); *USM Corp. v. Standard Pressed Steel Co.*, 453 F.Supp. 743 (N.D.Ill.1979); *Duplan Corp. v. Deering Milliken, Inc.*, 444 F.Supp. 648 (D.S.C.1978), *modified*, 594 F.2d 979 (4th Cir.1979), *cert. denied* 205 U.S.P.Q. 96, 444 U.S. 1015, 100 S.Ct. 666, 62 L.Ed.2d 645 (1980); *Ansul Co. v. Uniroyal Inc.*, 306 F.Supp. 541 (S.D.N.Y.1969), *modified*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018, 92 S.Ct. 680, 30 L.Ed.2d 666 (1972).

as plaintiff has admitted, it did not allege a cause of action for invalidity of the '263, '572, and '085 patents. (Plaintiff's Post Trial Memorandum at 127)

Based on the foregoing analysis, we find that defendant's filing of continuation-in-part applications does not constitute patent misuse.

**F. Fraud**

Plaintiff's final argument is that defendant engaged in fraudulent conduct in several ways when it presented its '244 and '540 patent applications to the PTO.

In one of the leading cases on fraud in the patent law, *Norton v. Curtiss*, 433 F.2d 779, 57 CCPA 1384 (1970), the court, noting the increasing number of applications presented to the PTO, stated: "[T]he courts have become more critical in their interpretation of the relationship existing between applicants for patents and the PTO and their scrutiny of the conduct of applicants in light of this relationship. . . . [T]he highest standards of honesty and candor on the part of the applicants in presenting such facts to the office are thus necessary elements in a working patent system." *Id.* at 793-94.

It is beyond cavil that in order to prove fraud, plaintiff must demonstrate by clear and convincing evidence, *Orthopedic Equipment Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1383 (Fed.Cir.1983), five elements: (1) representation of material fact; (2) falsity of that fact; (3) intent to deceive; (4) reliance on the misrepresentation; and (5) injury. *Norton v. Curtiss* at 793. In cases arising under the patent law, however, the party with the burden of proof need not prove reliance or injury, since it is assumed both that the PTO always relies on the representations made to it by the applicant who owes the "highest standards of honesty and candor," and that the public is always injured by a patent that did but should not have monopolized the market. *Id.* at 794; *Precision Instruments,*

*supra*, 324 U.S. at 816, 65 S.Ct. at 998. Thus, plaintiff herein must prove that defendant misrepresented material and false facts to the PTO with intent to do so.

Plaintiff first argues that defendant's failure to advise the PTO that guanidine hydroxide is not less damaging than sodium hydroxide (lye) constituted fraud. Defendant's patent specifications compare the effects of a sodium hydroxide formula and a guanidine hydroxide formula and conclude:

> The two formulations produced excellent degrees of straightening, but the formulation of the present invention was considerably less damaging to the hair. Hair treated for 20 minutes with the sodium hydroxide formulation retained about 65%-75% of its original breaking strength, wherein hair treated with the formulation of the present invention for 20 minutes retained about 90% of its original breaking strength. . . .
>
> . . . . .
>
> The same two formulations were applied to the skin of rabbits, and no irritation was observed with the formulation of the present invention, after 5, 10 and 15 minutes of treatment time. In contrast, the sodium hydroxide-based commercial product resulted in minor to severe irritation all treatment times.

(Ex. 234, col. 15, lines 37-54; Ex. 235, col. 15, lines 41-58)

Messrs. de la Guardia and Cowsar testified that initial tests comparing "Dark and Lovely" with sodium hydroxide relaxers conducted at SRI showed the results reported in the patent applications (Tr. 341-42; 1108-09) and the file wrapper (Ex. 38I, Paper 5, at 9). Subsequent tests, however, disclosed varying results and were so reported by the experts at SRI. On February 20, 1978, Mr. de la Guardia was advised by Ronald E. Cambron, PhD, a research chemist in the Biomaterials section of SRI, that

defendant's hair relaxer was at least equally damaging to hair as sodium hydroxide. (Tr. 525; Ex. 54) Almost one year later he wrote to Dr. Cowsar, "[w]e have tried in the past to prove that our relaxer is less damaging to hair than other relaxers on the market. We have not been successful." (Ex. 110; *see also* Ex. QQ at 19) Despite these realizations, not only was the information contained in defendant's '244 patent application never changed, but the '540 application which was not filed with the PTO until December 8, 1980 also contained these statements. (Tr. 526-27) Mr. de la Guardia testified that he saw no need to tell the PTO of the later discoveries since they were control tests used for marketing and advertising purposes. (Tr. 582)

Reaching the same conclusion as that set forth in the patent applications, Dr. Cowsar testified that a test conducted by SRI six months after the '244 patent application was filed showed that hair treated with "Dark and Lovely" retained more strength than hair treated with a sodium hydroxide product. (Tr. 112; Ex. QQ) Statistician John A. Bertashaw concluded in that report that the hair treated with "Dark and Lovely" did have slightly more tensile strength, though the difference was not statistically significant. (Tr. 1113; Ex. QQ)

We find that defendant's failure to report to the PTO its modified findings concerning the strength of guanidine hydroxide in comparison to previous "lye" formulations was a misrepresentation done with intent, but was not material so as to constitute fraud.

Intent to deceive, also called scienter, may be proven by "a showing of acts, the natural consequence of which are presumably intended by the actor." *Rohm & Haas Co. v. Crystal Chemical Co.*, 722 F.2d 1556, 1571 (Fed.Cir.1983); *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1151 (Fed.Cir.1983). Even if an affirmative intent to deceive cannot be established, the scienter element may be

proven if there was gross negligence in making the misrepresentation. *Norton, supra,* at 796; *Rixon v. Racal Milgo,* 551 F.Supp. 163, 183 (D.Del.1982). We find that the instant defendant was at least grossly negligent in failing to make the proper changes in its patent applications concerning the comparative damage to hair by sodium hydroxide and guanidine hydroxide relaxers. The proof overwhelmingly demonstrates that both Dr. Cowsar and the inventor Mr. de la Guardia knew there was no statistical difference between the two chemical formulations; Mr. de la Guardia's statement that the later tests were conducted for marketing purposes, not for patent purposes, is a feeble excuse for an obvious misrepresentation that we strongly condemn.

However, we are not persuaded that defendant's misrepresentation was material. A misrepresented fact in a patent application is material "[i]f it can be determined that the claims would not have been allowed but for the misrepresentation," *Norton, supra,* at 795, or if the misrepresentation "might reasonably have affected the examiner's decision as to patentability," *Gemveto Jewelry Co., Inc. v. Lambert Bros., Inc.,* 542 F.Supp. 933, 939 (S.D.N.Y.1982); *see American Hoist & Derrick Co. v. Sowa & Sons, Inc.,* 725 F.2d 1350 (Fed.Cir.1983) at 1362. Yet another standard of materiality is set forth in Rule 56(a) of the Rules of Practice in Patent Cases, 37 C.F.R. § 1.56(a), which requires those who prosecute a patent application to disclose to the PTO all material information of which they are aware. Information is material when there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The Court in *American Hoist & Derrick Co., supra,* found this standard of materiality to be the broadest, encompassing the others. *Id.* at 1363.

Plaintiff has not proven by clear and convincing evidence that defendant's patents would not have issued had

defendant altered its patent applications to reflect the more recent and more accurate test results. Nowhere in the file wrapper—the history of the patents—does the PTO examiner indicate that defendant's representation of the superiority of the guanidine hydroxide influenced its decision. Indeed, we are led to believe that had defendant presented the facts in their entirety, that there was no actual difference in effect between the two chemical formulations, the determination of the PTO would not have been altered. Since we find that defendant's misrepresentation was not material, we are barred from a finding of fraud on the basis of this failure to disclose.

Plaintiff's next fraud argument is based on alleged misrepresentations concerning a patent by Braun for a depilatory composition containing a substituted thiol and a basic material activating agent which can be composed of guanidine or other alkali ingredients. After defendant's '244 patent application was rejected, defendant appealed the examiner's decision to the Board of Appeals of the PTO. In its papers, defendant distinguished Braun by arguing that in that patent, the thiol is the active ingredient and guanidine is only used as an activating agent whereas in "Dark and Lovely" guanidine hydroxide is the active ingredient. Defendant further argued that Braun referred to guanidine only in the form of a guanidine salt, not a guanidine compound which was thought to be unavailable and unstable. (Ex. 38II, Paper 14, at 10-11) The examiner initially rejected defendant's arguments. He found that Braun taught the use of guanidine, hydroxides and carbonates in water with a resulting pH of 10.5-12.5 to effectively treat human hair. (Ex. 38II, Paper 15, at 2; Ex. 38II, Paper 21, at 2) A supplemental amendment was then filed by William A. Needle, Esq. when he became counsel for defendant. Mr. Needle stated that on July 28, 1981 he had an interview with the patent examiner and had argued that Braun discloses only that guanidine may be used as a solid basic material to activate hair depilation, not as a

compound for treating hair. Furthermore, Mr. Needle contended that Braun "taught away" from defendant's product since Braun removes hair rather than relaxing it, and Braun taught the use of guanidine alone, not guanidine hydroxide or even a guanidine salt. (Ex. 38II, Paper 31, at 5-6) After considering these arguments, the examiner changed his mind and allowed the claims. (Ex. 38II, Paper 32)

We find that some of defendant's representations to the PTO concerning Braun were false and material. However, we are not convinced that defendant acted with scienter and therefore a finding of fraud is unsupported.

As we have already discussed in detail, the difference between hair treatment and hair depilation merely boils down to how long a formula is left on the hair—when left for a short time, it breaks down cystine bonds; when left for a longer time, it results in depilation. We have also previously concluded that guanidine in water forms guanidine hydroxide, and that guanidine, an unstable chemical, is not available in its free state. Therefore, the distinctions (furnished to Mr. Needle by his clients and presented by Mr. Needle to the PTO) between the Braun patent and defendant's patents constitute material misrepresentations. Moreover, they were effective: the PTO denied defendant's applications for patents on the basis of Braun. Indeed, it is reasonable to conclude that but for defendant's misrepresentations regarding Braun, the patent examiner would not have changed his mind and granted the applications. *See Norton, supra,* at 795.

However, we do not find that defendant's misrepresentations were made with the imperative element of scienter. Although Mr. Needle's distinction between the human depilatory art and the hair treatment art seem to us to be disingenuous since as a patent attorney he undoubtedly knew that courts consider the two arts analogous (he even stipulated to this in Stipulated Fact 35), the instant opinion

firmly holds that guanidine in water is guanidine hydroxide, thus destroying his second distinction. In short, we are not convinced by the standard of proof requisite in fraud cases that defendant's statement—to the effect that Braun taught the use of guanidine alone, not guanidine hydroxide or even a guanidine salt—was made with intent to deceive the PTO. Our conclusion is further bolstered by the observation that not even plaintiff claims that Braun constitutes prior art.

Plaintiff's third argument on the issue of fraud concerns defendant's failure to present to the PTO an affidavit (verified February 23, 1979) by Mr. Heinz J. Eiermann, director of the Cosmetics Technology Division of the FDA, in another litigation involving the trade secret status of the ingredients in "Dark and Lovely." (Ex. 60) Although the parties disputed the admissibility of this document into evidence, we have already disposed of this question in plaintiff's favor: the Eiermann affidavit is relevant and admissible.

Of particular relevance is Mr. Eiermann's statement in his affidavit that:

> 20. [T]he mixture of calcium hydroxide and guanidine carbonate as an effective depilating agent has been publicly disclosed. Because of the close interrelationship between hair products, a cosmetic chemist skilled in the formulation of hair preparations would anticipate the same combination of calcium hydroxide and guanidine carbonate to produce an effective hair relaxer.
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> 25. In evaluating Carson's application, the Division consulted all the scientific and trade literature to determine if the identities and manner in which the ingredients were used were readily ascertainable by a knowledgeable cosmetic chemist. The request was also reviewed in light of the general knowledge of the state of the art with respect to hair products.

> This review led to the conclusion that the use of calcium hydroxide as the alkaline keratin modifier, in combination with guanidine carbonate as the accelerator, could be properly discovered and duplicated by reference to the literature and use of conventional chemical analysis. . . . (Ex. 60 at 6-8)

First, we find that defendant's failure to present Eiermann's statement to the PTO constitutes a misrepresentation by omission. By presenting a variety of other materials not including the Eiermann affidavit, defendant was essentially claiming that it gave the PTO all the relevant material about which it was aware. The exclusion of relevant information that defendant knew about, therefore, was misrepresentative.

Second, we find that defendant's failure to present the affidavit to the examiner was intentional, or at least grossly negligent. Although a patent applicant is under no obligation to disclose to the PTO all pertinent information of which he is aware, *American Hoist & Derrick Co., supra,* at 1362; *Digital Equipment Corp.v. Diamond,* 653 F.2d 701, 716 (1st Cir. 1981), we note that when it was advantageous for the defendant to present the PTO with an Eiermann affidavit, defendant was quick to do so: one of his affidavits that was written to defend an action involving defendant's "Gold Magic" product was given to the PTO during prosecution of the '244 patent. (Ex. 38II, Paper $8^1/_2$) Surely, if defendant remembered Mr. Eiermann's words involving another product, we must conclude that its memory stretches to statements by the same person concerning the product at issue.

However, we are not convinced that the omission by defendant of the Eiermann affidavit was material; that there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the patent. *See* Rule 56(a) of the Rules of Practice in Patent Cases, 37 C.F.R. § 1.56(a); *American Hoist & Der-*

*rick Co., supra,* at 1362. Eiermann's statement was not a prior reference relevant to the patent examiner's research; rather, it was merely an opinion of one skilled in the art, like the patent examiner, who reviewed the same sources and arrived at a different conclusion. We see no "substantial likelihood" that had Eiermann's conclusion been presented to the examiner, the latter's decision would have been different. We thus do not find on this ground that defendant engaged in fraudulent conduct.

Plaintiff further argues that defendant's failure to submit the Moore article to the PTO constituted fraud. We have already found that Moore was a prior reference which anticipated defendant's product. If a prior reference is relevant only in a general sense to the subject matter of an invention, it is not material. *See Environmental Designs, Ltd. v. Union Oil Co.,* 713 F.2d 693, 698 (Fed.Cir.1983); *Gemveto Jewelry Co., Inc. v. Lambert Bros., Inc.,* 542 F.Supp. 933, 940 (S.D.N.Y. 1982) (quoting *Digital Equipment Corp. v. Diamond, supra,* at 716). However, it is well settled that if an applicant knows of prior art that comes very close to describing his claimed invention so that a reasonable person would find that the invention was anticipated, the applicant will not be excused for failure to disclose the prior reference. *True Temper Corp. v. CF & I Steel Corp.,* 601 F.2d 495, 501 (10th Cir. 1979); *Warner-Jenkinson Co. v. Allied Chemical Corp.,* 477 F.Supp. 371, 396 (S.D.N.Y.1979), *aff'd,* 633 F.2d 208 (2d Cir.1980). Since we find that Moore anticipated defendant's patents, it follows that this prior reference was material.

However, we are not persuaded by clear and convincing evidence that defendant intended to decieve the PTO by omitting Moore as a prior reference. Defendant gave the PTO an article by Martin M. Rieger and Stanley Brechner entitled "Depilatories" which discusses as background to human cosmetic depilatories the customary use of lime (calcium hydroxide) for dehairing hides wherein guanidine derivatives are used as accelerators. (Ex. 38I, Paper 6,

Supplemental Amendment, at 2) Moore is listed on a page that is highlighted in the article along with more than 240 other prior references. Defendant also gave the PTO an article with the same title by an author named Richard Barry. it stated that guanidine was used as an accelerator in the art of dehairing animal hides with calcium hydroxide, and mentioned Moore, as well as 140 other references, on a highlighted page. (Tr. 1001-02)[15]

Plaintiff notes that on March 27, 1979, Mr. de la Guardia sent a letter to Dr. Cowsar listing the exhibits of the FDA when it evaluated the trade secret status of "Dark and Lovely," specifically referring to Moore's article which, he wrote, "probably deals with both ingredients [the guanidine salt and hydroxide] more than the rest of the exhibits, but they [Moore] are referring to processes that require 10 to 25 days and even months." (Ex. 49) Plaintiff argues that if Mr. de la Guardia believed Moore was significant enought to warrant referring it to Dr. Cowsar for evaluation, its conspicious absence from the material given to the PTO except as one of hundreds of names on two lists (almost hidden entirely) indicates defendant intended to omit it.

We are not so convinced. Defendant argues that since Moore directed the solution to remain on the hide for days, defendant believed the article was inapplicable. This interpretation, defendant contends, together with the fact that defendant gave the PTO the Rieger and Brechner article and the Barry article dealing with similar subject matter and ingredients, demonstrates defendant's lack of intent to deceive the PTO by failing to submit the Moore prior reference. Based on defendant's arguments and the legal maxim that a patent applicant is under no obligation to disclose all pertinent information and prior art of which he is aware to the PTO, *American Hoist & Derrick Co.*,

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[15] With respect to these listings, see our comment hereinabove in the section dealing with anticipation by the Moore article.

*supra,* at 1362; *Digital Equipment Corp., supra,* at 716, we find that plaintiff has not met its burden of proving scienter with regard to the Moore article, and hold that defendant did not engage in fraudulent conduct by failing to present it to the PTO.

Plaintiff's final two arguments on the issue of fraud involve the L'Oreal patents. In its first assertion, plaintiff notes that defendant initially represented to the PTO that the amount of guanidine hydroxide produced by using the L'Oreal patents was several thousand times less than that produced with defendant's patents. (Ex. 38II, Paper 31) This amount seems to have grown out of a letter to Mr. Needle from Dr. Katz, who tested the "Dark and Lovely" patents and the L'Oreal patents and concluded that there was 6,000-7,000 times more guanidine carbonate remaining in the L'Oreal formulas than in the "Dark and Lovely" formulas, *i.e.,* less calcium carbonate was formed and precipitated in the L'Oreal solutions, and consequently, less guanidine hydroxide as well. (Ex. 56) However, the "several thousand times less" conclusion seems to have been based on an erroneous evaluation of data. (Tr. 992-93) Nevertheless, defendant did not modify these numbers during the prosecution of the '244 patent; in contrast, when it filed its application for the '540 patent, the file wrapper indicated that the amount of guanidine hydroxide that may result from the L'Oreal patents is *several times less* than that which may result from "Dark and Lovely." (Tr. 994; Ex. D, 9/23/81, at 5-6) Plaintiff contends that defendant's failure to change the wording of the '244 patent was fraudulent.

We find that defendant's conduct in that respect was a misrepresentation and that defendant acted with intent or was grossly negligent. We are astonished by the testimony of Dr. Cowsar that he still agrees that the amount of guanidine hydroxide produced with the L'Oreal formula is several thousand times less than with defendant's patents since he believes there is no guanidine hydroxide formed

in the L'Oreal patents. (Tr. 1120) As we have already discussed, all the experts agree that some guanidine hydroxide is formed in the reaction between the ingredients in the L'Oreal solution. Indeed, in July 1981, Dr. Cowsar stated that he believed guanidine hydroxide was formed in the L'Oreal patents (Ex. 56), though probably not enough to relax hair. (Tr. 1147) Moreover, defendant was evidently convinced of this or it would not have changed its language in the prosecution of the '540 patent to "several times less" from "several thousand times less." It is clear to us that defendant acted with intent in failing to change the language in the '244 application, or, at least, was grossly negligent. In either event, the element of scienter was satisfied.

The next question is whether this failure was material. Mr. Walter A. Modance, a consultant in patent cases who worked in the PTO for 31 years (Tr. 975), testified that if defendant became aware of its language error before the patent issued and yet failed to inform the PTO of it, Rule 56 of the Rules of Practice of the PTO would have been violated.(Tr. 992-93) Though we strongly object to defendant's behavior in failing to inform the PTO of the error of which it became aware, we do not regard this failure as material. Significant in our determination are the facts that defendant did not deny the existence of guanidine hydroxide altogether in the L'Oreal patents and that the PTO allowed the '540 patent to issue despite defendant's language modification in prosecuting that patent. In short, we are not convinced that the '244 patent would not have issued but for the "several thousand times less" misrepresentation concerning the amount of guanidine hydroxide allegedly produced in the L'Oreal formulas, or that there was a substantial likelihood that a reasonable examiner would consider this statement important in making a determination on patentability.

Plaintiff's final argument on fraud concerns defendant's alleged misrepresentation to the PTO that the L'Oreal pat-

ents were ineffective to relax hair. Specifically, one of the papers presented to the PTO stated that "after 20 minutes at room temperature, hair treated with example 11 gel [of one of the L'Oreal patents] would not relax." (Ex. 38II, Paper 26, at 2) Yet there was no written evidence at all that this test was ever performed! Hendrix, defendant's chief chemist, deposed that tests to duplicate L'Oreal were never performed, that after he gathered his materials to conduct the tests, defendant's patent attorney told him not to go forward. (Ex. 246II, Hendrix, at 41) Mr. de la Guardia testified that he did run the tests but he forgot to record the experiment. (Tr. 558) Instead, it appears that *defendant's* formula was applied to hair employing the operating parameters set forth in the L'Oreal patents, and under these conditions, the hair did not relax. (Ex. 38II, Paper 31, at 7; Ex. 246II, Katz, at 57) Therefore, we find that defendant's statement to the PTO that the L'Oreal patents were ineffective in relaxing hair was a misrepresentation.

We further find that defendant had the requisite scienter to deceive the PTO. As we have previously noted, defendant was unable to produce even a scintilla of written evidence that it performed the tests it represented it conducted. Under these circumstances, we must conclude that defendant was at least grossly negligent in making this representation to the PTO.

However, we are not convinced that the misrepresentation was material. In its determination of patentability of defendant's "Dark and Lovely" product, it mattered little to the PTO examiner what the ultimate result of the formula was; as we have already mentioned, the examiner initially rejected defendant's application on the basis of Braun, a depilatory. Furthermore, when defendant informed the PTO of the L'Oreal patents, it enclosed a copy of them clearly entitled, "Process for Improving the Quality of Hair" (Ex. 38II, Paper 26, Supplement), an art obviously more closely related to defendant's product than

Braun's depilatory patent. Since we find that defendant's representation to the PTO—that the L'Oreal patent products do not relax hair—was not material to the determination by the PTO, we are compelled to find defendant did not act fraudulently in this regard.

In short, we find a lack of fair dealing by defendant in the following particulars: (1) defendant's failure to report to the PTO its modified findings concerning the strength of guanidine hydroxide in comparison to previous lye formulations; (2) defendant's failure to submit the Moore article to the PTO except in lists with hundreds of other articles; (3) defendant's failure to change the language of the '244 patent application (while it was still pending) from reading that the amount of guanidine hydroxide produced with the L'Oreal patents was "several thousand times less" than the amount produced with defendant's patents to the appropriate assertion that the amount of guanidine hydroxide produced was "several times less;" and (4) defendant's misrepresentation to the PTO that the L'Oreal patents do not relax hair. All of this proof distresses and astonishes us to the point where we find no hesitancy whatever in stating that the totality thereof brings us extremely close to a finding of fraud. The requisite degree of positive proof therefor which the law makes imperative prevents such a determination.

Putting it another way, we are positive that the defendant was not forthright in its presentation to the PTO (in other words, did not "come clean"), fully aware that the agency was not equipped to put to the test the quality and scope of each and every assertion.

**G. Patent Infringement**

Defendant alleges that plaintiff infringed several claims of each of its two patents involved in this litigation with plaintiff's two guanidine hydroxide-based hair relaxers, "FABU-LAXER" and "CREME OF NATURE." However,

as our Court has held (citing a cornerstone Supreme Court case in patent law): "With regard to the issue of infringement we must recognize the fundamental principle that an invalid patent cannot be infringed. *John Deere Company of Kansas City v. Graham,* 333 F.2d 529, 530 (8th Cir.1964), *aff'd,* 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966)." *Kahn v. Dynamics Corp. of America,* 367 F.Supp. 63, 67 (S.D.N.Y.1973), *aff'd,* 508 F.2d 939 (2d Cir.), *cert. denied,* 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975) Since we have found defendant's patents to be invalid on several different grounds of anticipation and obviousness, we do not hesitate to conclude that plaintiff was not—could not have been—liable for infringing patents that were in the first instance invalid.

**H. Attorneys Fees and Costs**

35 U.S.C. § 285 provides: "The court in exceptional cases may award reasonable attorney fees to the prevailing party." As our Circuit Court of Appeals has stated, "Fraud on the Patent Office would certainly be enough to make a case exceptional, '[b]ut conduct short of fraud and in excess of simple negligence is also an adequate foundation for deciding that a patent action is exceptional.' . . . [B]ad faith [too, is] sufficient to justify classifying the case as exceptional." *Kahn v. Dynamics Corp. of America, supra,* 508 F.2d at 945 (2d Cir.), *cert. denied,* 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975) (quoting *Monolith Portland Midwest Co. v. Kaiser Aluminum & Chemical Corp.,* 407 F.2d 288, 294 (9th Cir.1969)). *See Burndy Corp. v. Kearney-National, Inc.,* 466 F.Supp. 80, 92 (S.D.N.Y.1979). The decision to award or deny fees lies within the sound discretion of the district court. *Raytheon Co. v. Roper Corp.,* 724 F.2d 951, 956 (Fed.Cir.1983); *Central Soya Co., Inc. v. Geo. A. Hormel & Co.,* 723 F.2d 1573, 1578 (Fed.Cir.1983).

In the instant case we find that defendant failed on a number of occasions to act in good faith toward the PTO "sufficient to justify classifying the case as exceptional."

*Kahn v. Dynamics Corp. of America, supra,* 508 F.2d at 945 (2d Cir.), *cert. denied,* 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975) (quoting *Monolith Portland Midwest Co. v. Kaiser Aluminum & Chemical Corp.,* 407 F.2d 288, 294 (9th Cir.1969)). We consider it beyond dispute that the defendant totally disregarded the law's command that it owed the PTO the "highest standards of honesty and candor," *Norton, supra,* at 794; *see Kurt H. Volk, Inc. v. Foundation for Christian Living,* 534 F.Supp. 1059, 1086-87 (S.D.N.Y.1982). As we see it, we are constrained to, and do, grant an award of attorneys fees in favor of plaintiff.

No material has been submitted to enable us to determine the value herein of reasonable attorneys fees. Accordingly, we follow a practice our Court has successfully employed for a long time: We direct the parties to endeavor to agree on a reasonable and proper amount of attorneys fees, then to provide us with a proposed form of judgment including such amount agreed upon. If no agreement thereon is reached within 30 days from the filing date of this opinion, plaintiff is directed to serve and file its fee application. *See Kurt H. Volk, supra,* at 1087-88.

## CONCLUSION

For each and every reason hereinabove recited, we are constrained to, and do, find defendant's patents invalid, unenforceable and not infringed. Specifically, we find that all of the '244 and '540 patent claims were anticipated by: the Moore article, defendant's "Gold Magic" product, and the L'Oreal patents, 35 U.S.C. § 102, and were rendered obvious by the total prior art, 35 U.S.C. § 103—each clearly and convincingly established by the credible proof as revealed by the total trial record, and the law applicable thereto.